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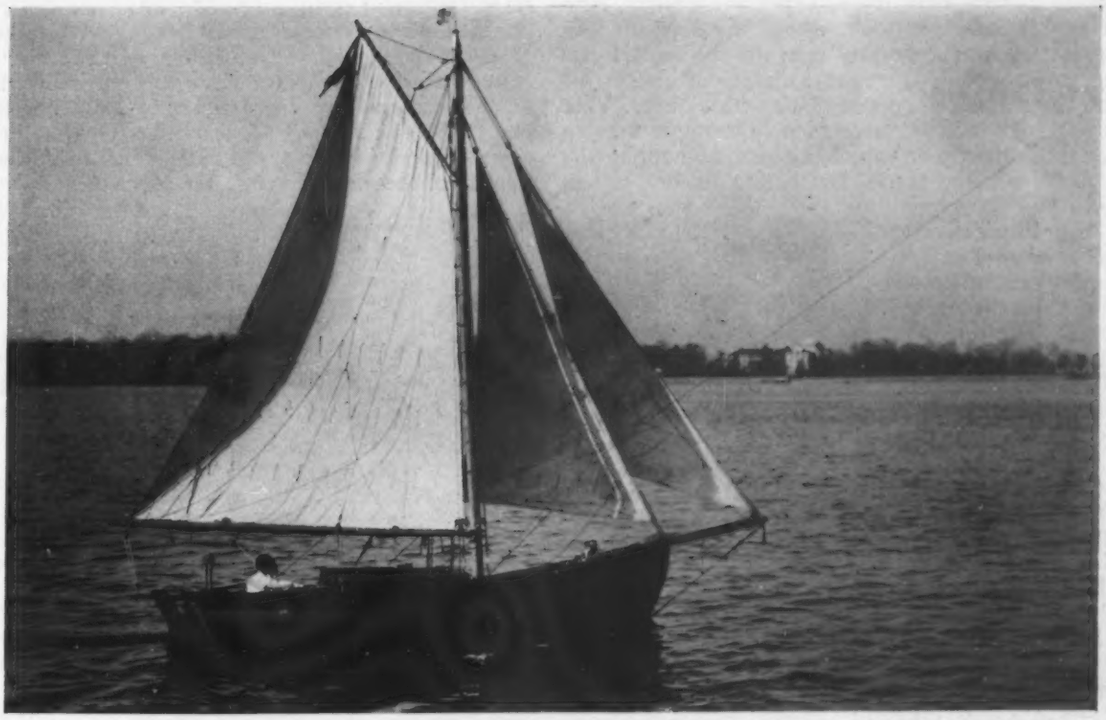


Despite the low cabin trunk *Postscript* has four feet seven inches headroom, although only 23 feet long over all.

Postscript's Winter Cruise

Part I — Getting Shaken Down in an Offshore Jump from Barnegat to Norfolk

By F. SLADE DALE

FROM the very start of the whole idea *Postscript* was to be a seagoing boat; as seagoing, at least, as her diminutive dimensions and the freshwater characteristics of the crew would permit. She was to be able to cruise to the West Indies and take whatever might come her way with some assurance of safety — though not necessarily with any degree of comfort — and she was to be strongly enough built to withstand all the abuse that might descend upon her through acts of fate or of a careless crew.

She was to have seagoing construction and appearance for two reasons: first, that she might actually prove a good boat at sea, and second, that she might look the part even when at her mooring in the headwaters of Barnegat. The latter reason is perhaps the more important one, for we all seem to enjoy calling our boats seaworthy ships whether we ever intend to go offshore with them or not.

As we pointed out in the August, 1928, issue of YACHTING, in an article which contained the lines and sail plan, *Postscript* was not laid out for week-end cruising or day sailing, and she has a number of features which are not usually found — nor wanted, perhaps — in boats of her size. She carries 415 feet of sail in her cutter rig and draws about three and a half feet, but she is only 23 feet over all and has accommodations for only two persons. I should not like to send blue prints to someone who wanted to build a duplicate and then, after a few months, receive a letter exclaiming: "Why! She's all fore deck and fore peak; she has no room in the cockpit; you can't see over her rail through the ports from below, and my wife gets all tangled up in the ropes."

And there are other features that might not make a general appeal; even the painter who lettered "Postscript" on each bow wanted to do it in small letters because he said we would have a hard time selling a boat with a name like that and the less conspicuous it was the better it would be.

But it just happens that Pete and I — and also the staysail, two anchors, cable, windlass, and frequently the dink — revel in that spacious forward deck, and the snug cockpit with the sunken well arrangement is one of the joys of our existence. Similarly, the high rail and low cabin trunk satisfy other whims, and as for the ropes — well, as long as all the ends are whipped and each has a cleat of its own, what harm is there in having the deck lined with perfectly useful halliards and sheets?

And then there's the heavy construction and oversized spars and rigging. We thought when we laid out the substantial frames and keel that we were taking precautions against the far-off time when we might be blown ashore on

a reef of the distant Indies; yet we had not long to wait for the occasion to be thankful for that solid oak and heavy planking. Our wire rigging, stays, and bowsprit guys are all heavier than the usual standards for small cruisers, but we had not gone further than Norfolk when they were all taxed to the limit, and doubtless their margin of reserve strength was just about what was needed to prevent a passing incident from becoming an expensive mishap. Nor was there any dramatic incident at sea involved on this occasion — no rushing, pooping sea; no terrific knockdown such as we would write home about. Ordinary rigging seems to take care of most of those incidents. This was a puffing tugboat that insisted on placing a nearby dredge's anchor directly on top of our own, and at the unearthly hour of midnight, too. Deftly fouling one of her bumpers in our bowsprit guys, in the impressively businesslike way of most tugs, this harbor monster seemed bent on dragging our bow under, until a chorus of profanity, which we keep in reserve for suitable emergencies, gained us recognition and ultimate freedom. So we have had early cause to appreciate *Postscript's* general staunchness.

Postscript's crew make a load for her dinghy. Peter Jenness, Jr., at the oars, Slade Dale in the stern.

And what have we learned of her behavior thus far? Is she tender, as we anticipated? Is she overcanvassed? Has she a quick and violent motion? How will she heave-to in a sea? Will she sail to windward under staysail alone? These and a dozen other questions were in our minds as we left Morton Johnson's yard in Bay Head, N. J. — the birthplace, incidentally, of Commodore Crabbe's centerboard schooner *Windjammer*, well known to readers of YACHTING. And let it be said in passing that *Postscript* was a finished boat before she left the yard; there were not a dozen little items left undone or slighted; there was nothing half done and ready to give way in the first real test offshore. *Postscript* was as seagoing as good workmanship could make her, and she was turned out in her home port, almost within the metropolitan district, at a figure that would compete with supposedly cheaper yards elsewhere on the Atlantic seaboard. If there is ever to be a successor to *Postscript* we hope she, too, will come from the same yard.

A boat's motion does not readily lend itself to description, but if we had visions of *Postscript's* pitching and tossing at such a rate that her crew would have difficulty in hanging on, we have been disillusioned. True, we have not had any overwhelming gales of wind, nor any tumbling seas in light airs; we have not been in the Gulf Stream yet, and our tide rips have all been negotiated in steadying breezes, but we have found the motion easier and smoother than we anticipated, due in part, no doubt, to the heavy construction and the distribution of weight throughout the hull, as well as to the comparatively shallow depth of the keel below the water. Only once have we felt the need of a lashing for the man at the tiller, and that was more for the ease of mind of the man below than for the actual need of the man steering.

Postscript's initial angle of heel is fairly large, and with ballooner alone in a stiff breeze she will put her deck almost down — but there she stops. At an angle of 25 degrees, rail down, she reaches what is ordinarily her ultimate angle even in strong winds, and although we have not taken a severe knockdown with full sail we have sailed her close-hauled in a 40-mile wind under double-reefed mainsail and staysail and have seen her stiffen up severely at about this angle. All in all, tenderness has not given us any worry, and I suppose a deep-keel sailor would consider *Postscript* ordinarily stiff, while we centerboarders are inclined to view her initial heeling with some interest. If she were ever knocked down so that her mast and canvas were in the water she would probably free herself on the next sea, but unless we are taken completely off our guard there seems not the remotest likelihood of such an event — and we are not apt to be off guard in weather that might cause a knockdown. We have already had heavy breakers — but there, we are getting way ahead of ourselves.

The cutter rig, efficient and convenient, has proved ideal; the staysail is easy to handle and yet is large enough to lend itself to useful purposes even without other canvas. We can go to windward with it, lie-to with it, and use it in conjunction with a reefed mainsail long after a single jib might have been furled up. In beating to windward under staysail alone, we can put about readily enough in smooth water, such as would exist in a harbor where we might be shifting anchorage, but in bad weather in rough water it would be necessary to wear around. Besides the three working sails we carry a squaresail, which simply hoists on a yard on the staysail halliard; a trysail for heavy weather; a combined ballooner and spinnaker; and a storm jib. We have used all but the small jib and this will doubtless prove valuable.

Our best speed thus far has been 6½ knots under full mainsail and ballooner, with a 25- or 27-mile wind on our quarter and a smooth sea. We have also reached this same figure running off before a fairly good sea with only the mainsail drawing. In both cases the wind would have been more than we could carry close-hauled without reefing.

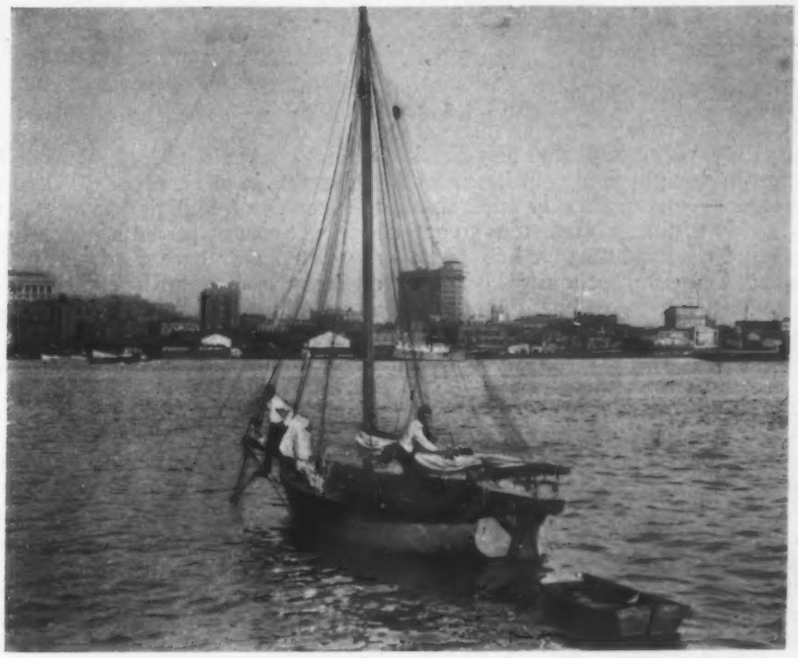
It was November 13th when we finally found ourselves free to turn whole-heartedly to our boat, and although there was a touch of cold in the air as we slipped past the buoys in Barnegat Inlet we felt that we were getting away in good time to escape real winter weather. There was something bordering on indifference in our attitude on the occasion of our start; we felt a peculiar independence and aloofness as far as wind and sea were concerned, and in our determination to get offshore and put our boat to a test we scarcely thought of waiting for favorable winds.

In making preparations for the cruise we had tried to think of every contingency and to equip the boat with all that good sense might require in the way of rigging and equipment. Likewise, we tried to see to it that we were in good enough physical shape ourselves to withstand what might prove in bad weather to be a violent and uncomfortable motion. But if we were to tell of the glorious days and nights of offshore sailing which followed our departure from Bay Head; if we described the starlit skies, the hissing, roaring, curling waves, the plunging bow and phosphorescent wake; if, indeed, we touched upon any of nature's beauties of that first week, we should be indulg-

ing not so much in fabrication as in imagination. For the crew was in no condition to consider the wonders before them. Alas, for our efforts at fortifying ourselves! Barnegat Light had hardly faded astern before we dejectedly hauled in the log, furled mainsail and jib, and fell into our bunks — seasick. With staysail set and helm about half down, *Postscript* was left to keep her own watch and to conduct herself as she saw fit.

It was all rather casual. A good sea was still running from the northeasterly breeze of the previous day, and a wind sea from the northwest was running on top. It was only mid-afternoon, and we were but 10 or 12 miles off the beach. There was no standing-by to see how the boat would behave; she was put on the offshore tack, and her behavior, if given any thought at all, was approved from the bunks below.

Sixteen hours later the coast guard patrol boat *Rush*, cruising along about 30 miles offshore and well outside the steamer tracks, sighted a patch of white canvas on the horizon at dawn and hauled over for a closer view. She found a deserted deck, a lashed tiller, and a squaresail drawing idly in the fluky air. Her officer came aboard, bringing with him his longitude and latitude and a weather report that indicated southerly winds. He said that we did not look as sick as we felt, and I know he was right.



At anchor off Norfolk after the rough passage outside from Barnegat Inlet.

Despite the weather forecast, we had no intention of going back to the coast. We had come offshore to fix once and for all the sense of confidence which we had been cultivating. We naturally hoped for favorable winds, but they were incidental — a fortunate thing, for they never appeared again after the first day. Instead, we ran into increasing southwesterly winds, and when at dusk of the second day we again lay-to under the staysail it was the start of as trying a period as we have ever gone through. For 40 hours we enjoyed as much hell as could be crowded on any two persons; we could not sleep; we could not look at food; the least physical effort sent us reeling back to our bunks, exhausted. And I thought I had known seasickness in all its deadly degrees!

The almost endless night finally dragged by and our forlorn condition was even more apparent during the day, for we then had two sleepless nights weighing upon us and the lack of food was beginning to tell. Force ourselves to work? We couldn't. We made repeated attempts to rouse ourselves, but we always reached a point where strength utterly failed and an alarming faintness came over us. I remember thinking that no matter what emergency might arise the only effort I was going to make would be to shut the companion slide when water started to pour in; up to that point I felt I would not raise a hand. From this experience it seems to me that physical exhaustion through seasickness might well be an unforeseen source of danger in time of bad weather, for although we have never been incapacitated to a like extent since, I think we would have put up a woefully weak defense on this occasion if our efforts had been necessary to handle the boat in really bad weather.

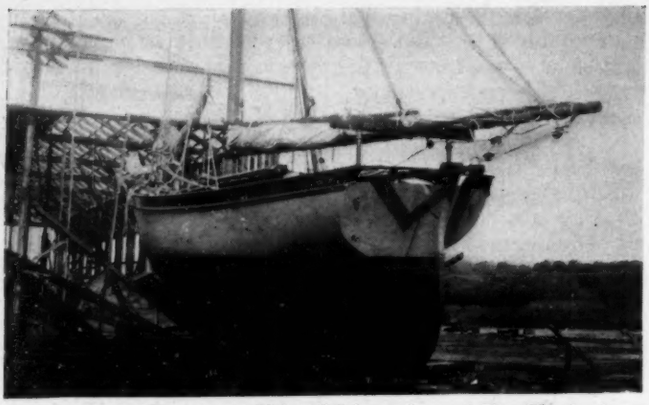
And yet, torturing as it was, we knew the ordeal was good for us. We knew — although once or twice we felt doubtful — that we must get well eventually; we knew that such a devastating experience would have to carry some benefits in its wake — if only to harden us for future tortures!

Along in the afternoon of the third day out, hove-to and in our bunks, with no sleep and no food, and countless miles offshore, we were startled into life by the ominous blast of a steamer's whistle right on top of us. A freighter it was, from Oslo, and curious, no doubt, to know if all was well. We waved a reply, and fell back to our bunks, while the steamer turned around and went off on her way. I do not know how many miles she had come off her course, nor what she was doing out there herself, but doubtless we were a strange sight so far from the lanes of traffic and lying so forlornly under a single headsail.

But the appearance of the steamer had awakened us to a fact that we had not realized in our bunks; it was beginning to blow in earnest. The seas were lengthening; the crests were lopping off and there was a rush and a roar to them that we had not heard before. The coming dusk was bringing with it more wind, and we had a feeling of tininess in the immensity of all that was about us. Oh, for the glorious exhilaration that might have been ours! We should have been on deck, in the cockpit, watching those waves, the whitecaps, the flying spray. We should have been watching our boat, adjusting tiller and sheets, finding out how she would ride best. We should have been active, alive, and alert — enjoying ourselves. But instead, we were in our bunks — dazed and forlorn, sick, and cheated. And to make it worse the boat was beginning to be uneasy. Instead of riding steadily she was falling off and working up, filling away and luffing, one moment taking the slap of a wave on the quarter and the next moment shaking the staysail in a violent luff. Something had to be done.

Thus it was that two bedraggled figures, with the energy of desperation, fumbled around on deck and below with a sea anchor and storm trysail until all was set and they could once more turn to their bunks, exhausted. But this time there came sleep as a reward for their efforts, and within ten minutes *Postscript* was keeping an even lonelier vigil than before.

It seemed strange that after two sleepless nights we should both fall asleep immediately after setting trysail



Postscript on the ways at "Mort" Johnson's yard, Bay Head, where she was built.

and sea anchor; I do not know whether it was due to exhaustion, to an easier motion, or because we were more at ease mentally, but, at any rate, we slept profoundly. And that was the turning point in our physical condition, for in the morning we felt better — just ordinarily miserable — and by noon we were ready to take active steps to get underway once more and find the land that we knew was somewhere to the westward. Our dead reckoning had suffered a complete and premature demise, but our subsequent landfall at Atlantic City fixed our outermost position as about 100 miles east of Delaware Breakwater, Cape Henlopen.

And so, with only 30 miles of progress to show for five days of struggle, we picked up our coastwise course and prepared for the more profitable form of strategy which utilizes fair winds for progress, and employs harbors instead of the sea anchor for holding gains made good. But we came inshore with a feeling of confidence in ourselves and in our boat that no amount of coastwise sailing could have instilled, and with a memory of petty hardship and discomfort which, in retrospect, is almost as enjoyable as the actual experience was arduous.

The seas at the time we used our sea anchor and storm trysail were about 15 or 17 feet high, I should say; certainly, not over 20 feet. The wind may have been blowing harder than we realized, but I think it was not over 40 miles an hour, actually; we could have run off before it under a patch of canvas, but it is doubtful whether we could have made much progress to windward, and perhaps we could not have sailed close-hauled against it at all. I am afraid, however, that our perceptions were not really keen at the time, and these estimates may not be very accurate. It took us 28 hours to pick up the land, and during the greater part of one night the boat sailed herself with a moderate breeze forward of abeam, keeping a steady course all the time, so far as occasional glances at the compass in the cabin revealed.

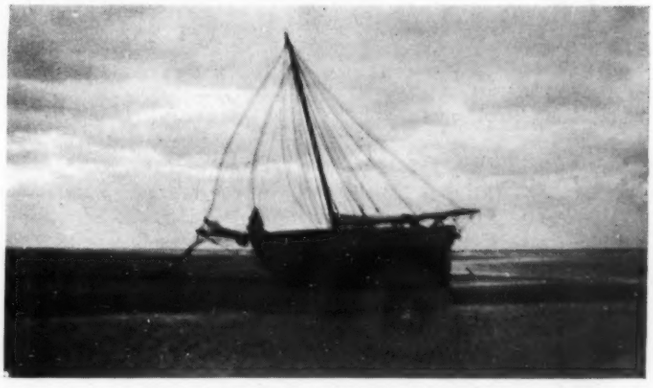
As it was dark when we approached Atlantic City, we lay-to under the staysail until dawn about five miles off the beach, and spent a night divided between deck duty and sleep. A dozen steamers passed us in the space of a few hours and as our riding light seemed woefully lacking in comparison with the illuminated monsters which floated silently past us, we supplemented it with a powerful flashlight when we saw red and green lights bearing down upon us. We kept a white flare within easy reach, too, and although tempted once or twice to use it we got through the night without its assistance.

Another night we lay-to under the invaluable staysail off Cape May, when we reached the Delaware entrance too late to cross with the ebb tide and deemed it wise to wait rather than to make a night crossing in the steep rip which the flood tide and strong northwest wind kicked up. The succeeding night we found ourselves harborless along the coast north of Chincoteague Inlet, and with a head wind we faced the unpleasant task of a long night of beating, or the alternatives of heaving-to on the offshore tack or of anchoring. We chose the anchor and crawled in close under the beach to get as much shelter as possible. It was when breaking out the anchor in the heavy swell the following morning that we decided our ⅞-inch rope cable was not heavy enough, and we have since replaced it with one measuring 4 inches in circumference, or about 1¼ inch diameter.

And then came an incident which should properly be suppressed. It is barely mentioned in *Postscript's* log, where an entry simply states, "Got aground on Fisherman's Island, Cape Charles." We used "aground" instead of "ashore" because it sounds more casual; boats get aground every day and think nothing of it, but getting "ashore" implies something more serious and savors of shipwreck. To be strictly truthful I think we should have used "ashore."

Looking backward, it is easy to recognize the contributing factors in our escapade. We have always distinguished between *inside* sailing and *outside* sailing — the former an innocent sort of pastime which demands neither skill nor any particular care, and the latter a thing apart from ordinary sailing and requiring constant attention and watchfulness, and a thorough regard for the mightiness of the elements.

So when we rounded Cape Charles about 2 A.M. one blustery November morning and laid our course for Hampton Roads it was with a sense of having left the ocean astern, and with it all the dangers of navigation. Ah, fateful error! We were soon to pay for our slighting thoughts, for the wind picked up and the sea picked up, and *Postscript* plunged and threw spray, and her crew was wet and tired, sleepy and cold. The lights on Cape Charles

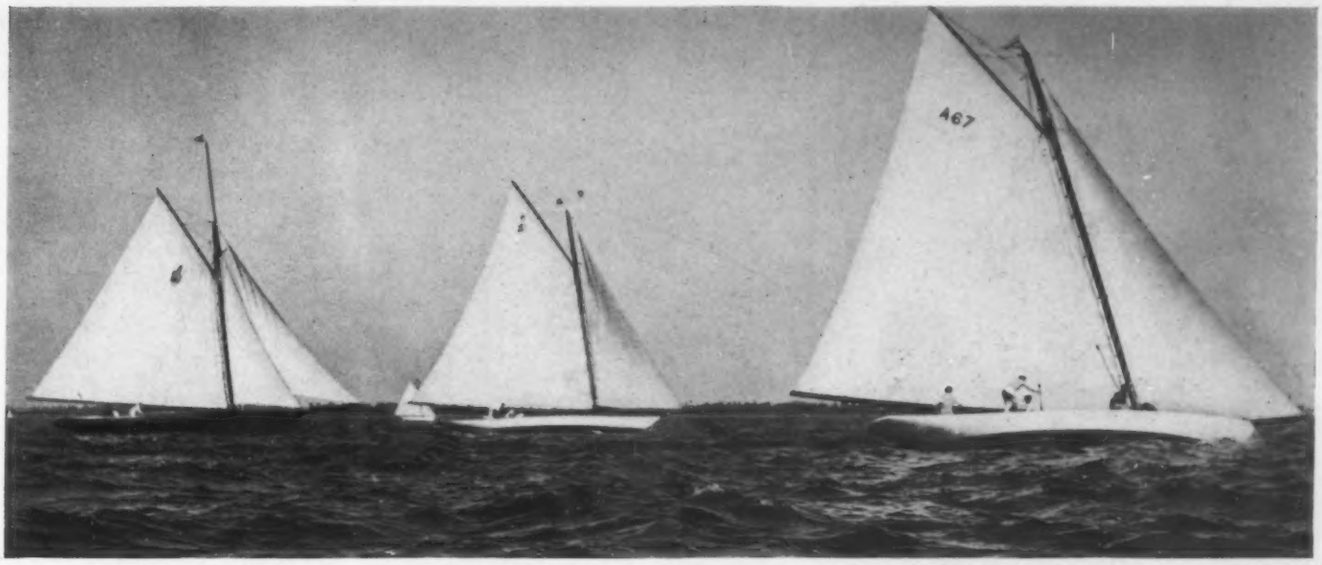


"We wondered just what fate we had brought upon *Postscript* now." Ashore on Fisherman's Island, Cape Charles.

and Cape Henry gave bearings which fixed our position; the tide *should* be ebbing; a northeast course would take us back clear of the Cape and we could find a harbor by daylight. So down came the mainsail, the riding light went up on the gallows frame, the staysail was trimmed and the tiller lashed, and the crew went below — to keep warm and dry between occasional glances on deck. And the wind howled gleefully and the waves hissed their scorn of the sailors who were sailing "inside."

Thud! Thud! Bump! What a fearful sensation to *awaken* with! Something had gone wrong with the ship's routine; those occasional glances on deck had not materialized. Then up on deck and a struggle to pole the bow around, to jibe off on the other tack. But no use; the ele-

(*Continued on page 120*)



The Royal Canadian Yacht Club is not alone in its problem of what to do with a mixed fleet. The First Division: Left to right, *Medora, Crusader, Saita,* Queen City Yacht Club.

May The Best Rule Win!

An Interesting Experiment in Measuring and Racing Universal Rule Yachts Under the International Rule

By C. H. J. Snider

THIS is not to add to the welter of words which must necessarily be uttered before the formulation of the best rating rule, so ardently desired, is achieved. Its purpose is to offer a season's experience as a sounding buoy in a channel that is being charted.

Somebody had to take the initiative in reducing the International Rating Rule from paper to practise on the Great Lakes, after the North American Yacht Racing Union had given it its benison, and in the season of 1928 the Royal Canadian Yacht Club took the plunge.

The Royal Canadian is one of the largest of yacht clubs with a membership of 2,000. Its station is at Toronto, on Lake Ontario. The Royal Canadian fleet has always been a decidedly mixed one, for from its foundation in 1852 the club has encouraged enterprise and experiment of every sort, as long as it was on legitimate lines. The very first yachts enrolled embodied the contrasting ideals of British and American designers, in the deep English cutter and the shoal American centerboard type. Moreover, the club has always preserved a good balance between racer and cruiser, cup-hunter and pleasure craft. Its yachts have "gone foreign" and "come from foreign" from the early days. At the same time it has encouraged the development of local building, and has been firm in standing by the spirit as well as the letter of all racing or measurement rules to which it has been induced to give formal endorsation.

Since 1907 the Royal Canadian Yacht Club had been a whole-hearted supporter of the Universal Rule. The year 1928 found it with a fleet of the following character:

(1) A first division of yachts from Class N upward, Universal Rule, including ketches, schooners and a surviving pair of cutters older than the rule itself. This division had been accustomed, for years, to race on time allowance.

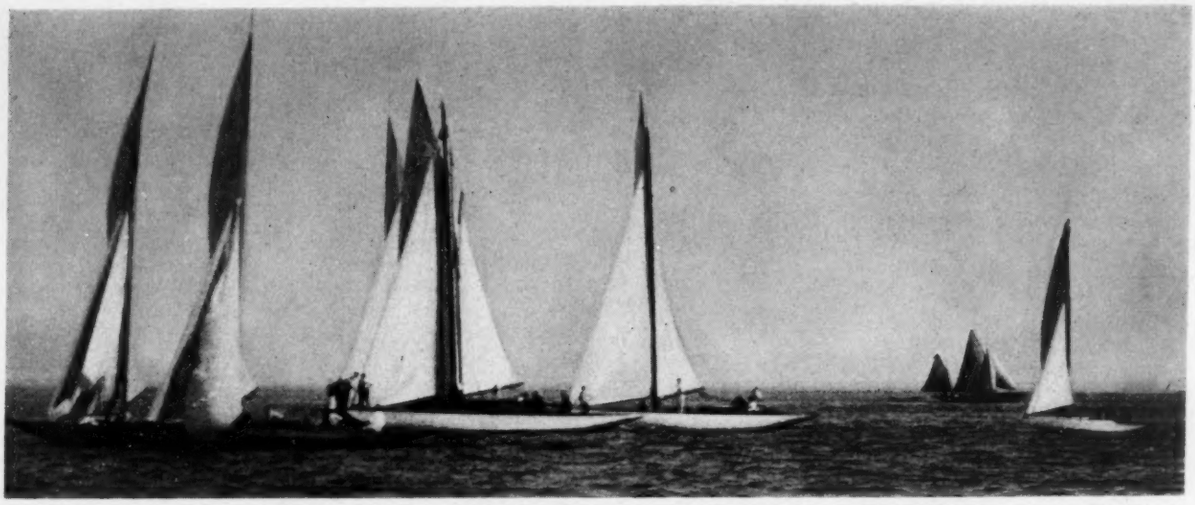
(2) A second division of gaff-rigged Class P sloops, none of them modern, but all well kept up and as well matched, in the light of performance in nine seasons, as most one-design classes. The yachts of this division had always raced without time allowance among themselves, each competitor being accepted at the top of her class.

(3) A third division of Class R sloops, with an occasional survivor of the 20-foot water line sloops of pre-Universal days — a division hopelessly jumbled, owing to differences of gaff and Marconi rig and pre-Universal and post-Universal design; a jumble complicated by the fact that newer yachts, longer and heavier than the older ones, rated exactly as the short, light pioneers of the rule; with a super-complication due to the arrival of the first International rating sloop, the Finnish Six-Metre *Merenneito*. This third division had been racing with all the "R" boats accepted as at the top of their class, an arbitrary allowance of ten seconds a mile or more being given the gaff rig by the Marconi, and another handicap being accorded the old 20-footers, although they rated nominally as "Q's", and, as such, should have allowed the "R's" time.

(4) Finally, a fourth division of one-design sloops (T. B. F. Benson's well-known "Bing Boys"), as alike as a dozen peas in a row, and always furnishing an exciting seesaw struggle for championships on points.

In addition, of course, the club had its large quota of open and semi-open boats — real boats, and so not entering into the question of yacht classification. [By the way, isn't it about time that we brought ourselves up with a round turn on the abuse or overuse of the term "boat"? I know "Wild boat of the Atlantic" was good enough for the clippership *Dreadnought*, but personally I'm tired of having three-deckers of the Spanish Armada called by the same name as an oversize slipper, or a broken-down car. I don't mind calling a sailing dinghy a little ship, but, Poseidon helping me, henceforward I'm going to confine the use of the unhyphenated word "boat" to something without decks or standing rigging.]

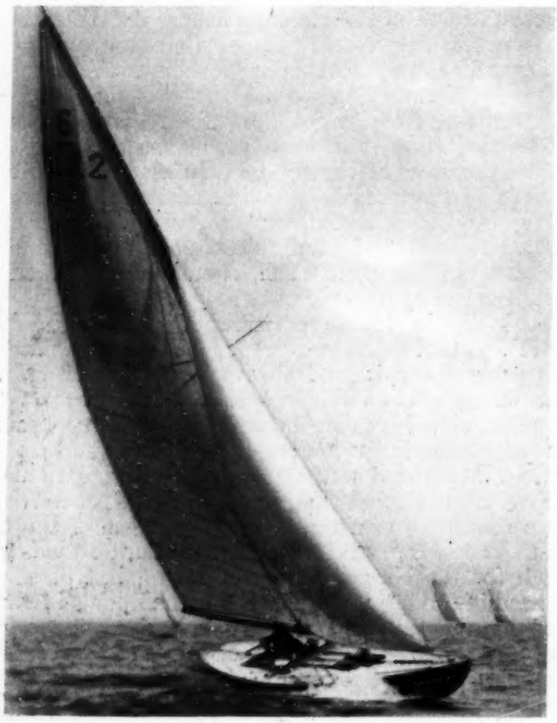
Having weathered this squall, let me tell you what the



Time allowance, and, consequently, rating loom large in close finishes in a mixed class. A heterogeneous fleet of two "R's," three "P's," a 40-foot cutter and a Class C sloop finish in a race for the Queen's Cup.

Royal Canadian Yacht Club did with its conglomerate squadrons in 1928. International rating was applied to the whole fleet except the fourth division. These little yachts are all of one design, and race only among themselves.

The first division was raced on time allowance based on measurements under the International Rule, and the season's championship went on points to the cutter *Gardenia* — which had won the same championship on points under the Universal Rule for three years in succession. *Gardenia* had to work harder for the honor in 1928, but attained it. She was designed by William Gardner and built in 1906, just before the Universal Rule came in on the lakes. She is 41 feet water line and has sail area of 2,500 square feet, and has always had to give time to her closest competitors in the first division. These have been, of recent years, the cutter *Strathcona* and the schooner *Yolanda*. *Strathcona* is a Payne-designed craft, three years older than *Gardenia*, and built to the restricted rule on the lakes which limited her class to 40 feet water line and 2,600 square feet of sail. *Yolanda* is a modern Universal Rule schooner, of slightly larger general dimensions than either of the cutters, and of lower rating. According to her measurement under the International Rule *Gardenia* had to allow *Strathcona* 2.47 seconds per mile, whereas she had been allowing her 7.62 under the Universal. *Gardenia* had to allow *Yolanda* 20.52 seconds per mile under the International, and 16.83 under the Universal. The alteration did not reverse the results of preceding seasons' contests, but it did make the racing more interesting.



Merenneito, a 6-metre, has been doing well against 20-raters and mixed company on Lake Ontario.

The second division Class P sloops were lumped together as Ten-Metres, and raced together without time allowance in their own division, as they had always done. Calling them "Tens" was rather a rough-and-ready way of going about it. It did injustice to no one, for, as said before, these "P's" were always pretty even in performance, and the class was practically a closed one. No strangers entered it. Had one of the Bremen-built "Tens," which came out in 1927, suddenly appeared on the lake triangle she would have made a sweep of every race. But none did.

These ex-"P's" vary in length from 52 to 56 feet over all; they are shorter than a modern Ten-Metre, and a little smaller in every way. In fact, they are not much larger than a modern "Q," and they have all, by agreement, retained their original and now antiquated gaff rig. The season's championship went to *Stranger*, designed by George Owen, 1916. *Stranger* had been chasing that championship for years. *Patricia*, a product of 1911, had won the championship four times previously. She was well up on points in 1928, but was knocked out in the deciding race — first disqualified, then dismasted. That is about as complete a knockout as a champion usually gets, but the change of rule was hardly responsible for it. *Patricia*, by the way, was rerigged with a new mast, built in the R. C. Y. C. shops the week after the disaster, and raced with this new spar before it could be varnished, in a post-series race seven days after she lost the old one!

It was in the third division that the application of the new rule made a pronounced showing. Here was plenty of room for improvement. For a first season tryout the club sailing committee did not wish to swamp the measurer with too much work involving complicated calculations under a new formula. The whole batch and baking of old "R's," new "R's," quasi-"Q's," and so on, was accepted as a Seven-Metre Class, International Rule. Eventually,

this Seven-Metre Class will race on time allowance based on individual rating. For 1928 an approximation was made in this way:

Dimensions from the plans of the two newest "R" boats (*Eleanor*, T. B. F. Benson's Great Lakes championship winner, 1926, and *Acadia*, W. J. Roué, same date) showed that they would top the class at 23 feet rating. It is noteworthy that while the International Rule was employed, and the metre classification used in denominating the divisions, measurements continued to be calculated and recorded in feet, after English precedent. *Eleanor* and *Acadia* were, accordingly, made the scratch yachts in their division. It was found that *Nayada* (Benson, 1923) and *Lillian E.* (Alden, 1923) came next highest. They approximated 22.5 feet rating, and were entitled to 4.97 seconds per mile time allowance from the first pair. The committee was generous and made it a flat five seconds. *Nirwana* and *Vivia II*, two venerable young ladies dating from 1912 and 1911, respectively, were measured at 22 feet rating, and entitled to 10.12 seconds per mile time allowance from the scratch pair. The committee told 'em to take ten and look pleasant, which they did.

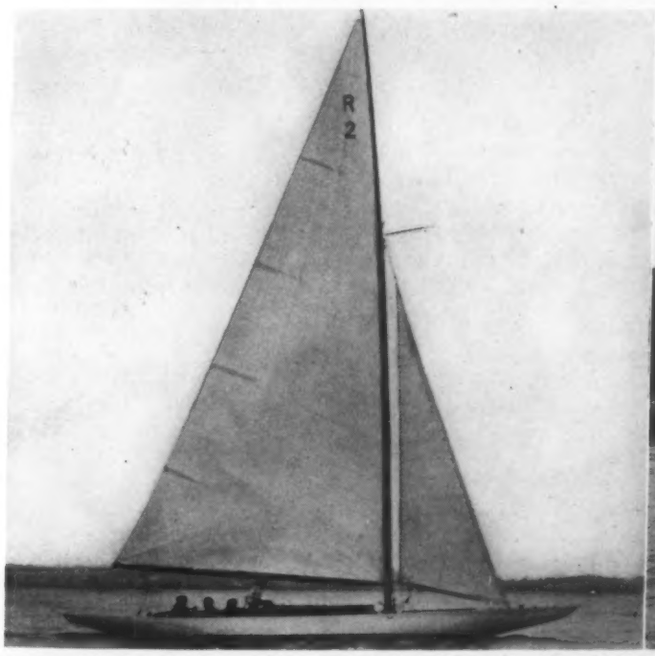
There remained the jolly little *Scrapper II*, sole surviving exponent of the gaff rig in the class, sailed by the septuagenarian, Dr. A. A. Macdonald, and his grandsons. *Scrapper* belonged to the Owen family, 1913 bottling. She drew an allowance of 20 seconds a mile from the top-notchers, in view of her rig, although she rated as high as *Vivia* and *Nirwana*.

Even if compromises, the results of this rearrangement are worthy of consideration. Hitherto all these yachts had rated at 20 feet, Universal Rule, and all the winnings went to the newer and larger "boats." — There, I've done it! — Here were the two biggest sloops, that is, the longest, heaviest and most modern, left at the top of the class which they had been dominating ever since their appearance. Seventeen years old, and handled neither better nor worse than the newer craft, *Vivia II*, thanks to her moderate handicap, was knocking at the championship door throughout the season. She ousted *Eleanor*, winner of the Great Lakes championship in 1926, and finished runner-up to *Acadia*, losing the championship by only 61 points to 66. In 1927, when all the "R" boats, old and new, raced on one rating, with allowance made only for gaff rig, the score by points was: *Acadia*, 70; *Eleanor*, 67; *Nirwana*, 61; *Vivia II.*, 54; *Nayada*, 49; *Grayling* (gaff "Q"), 35; *Scrapper* (gaff "R"), 17; *Lillian E.* (seldom sailed), 9.

The cutter *Strathcona*, designed in 1903, is still going strong in the Royal Canadian fleet.

Nothing could be more illuminative of the effect of rerating the club's R Class than the results of such a race as that of August 18th, 1928, over a twelve-mile course in a fresh to moderate nor'wester. Note how the positions shift when time allowance is figured. Under the old rating all the fat would have gone to the new yachts, in the order of finish.

Finish Order	*Elapsed Time*	*Order of Merit*	*Corrected Time*
1. *Acadia*	2:03:49	1. *Vivia II*	2:03:48½
2. *Eleanor*	2:04:09	2. *Acadia*	2:03:49



Emphasizing the problem of many of the Great Lakes yacht clubs, we have (right) *Swamba*, first winner of the George Cup and still racing, and (left) *Kathea*, one 20 feet water line, the other, 26 feet. How to race these equitably in the same class is a problem the Royal Canadian Yacht Club may have solved.

3. *Vivia II*	2:05:50	3. *Eleanor*	2:04:09
4. *Nayada*	2:09:48	4. *Nirwana*	2:08:00
5. *Nirwana*	2:10:01	5. *Nayada*	2:08:48
6. *Lillian E.*	2:11:10	6. *Scrapper*	2:09:42
7. *Scrapper*	2:13:43	7. *Lillian E.*	2:10:10

In this instance rerating gave a well-earned race to a 17-year-old by a margin of one-half second over the *dernier cri*.

Championship of this new Seven-Metre Class of 1928 went to that thoroughly good "R" Class sloop *Acadia*. She was designed by W. J. Roué in an earnest effort to show that the Universal Rule was still capable of producing a fast yacht that had reasonable freeboard, reasonable beam, and a moderately low proportion of ballast in her total displacement. *Acadia* was beaten for the championship of Lake Ontario by "R" boats of more extreme type and heavier displacement, so that the thesis upon which she was offered has yet to be proved. But it was prophesied when she first appeared that with equal handling she would win a majority of the races she sailed, and her experience in club contests in 1928 vindicated the forecast. Over *Eleanor*, her classmate of 1926 and team mate in the revised classification, she scored a complete victory, boat for boat.

Nayada, Great Lakes champion in 1924, and since outbuilt, took on a new lease of life. She had been purchased by her designer, T. B. F. Benson, and was rerigged with a loftier jib, and sailed by him throughout the season. At times she looked like the 1928 champion, the new design for her head canvas quickening her in light airs, where she was formerly stolid; but a twisting sou'wester took the whole rig out of her, and her championship hopes went glimmering. Undoubtedly, the new rig and new rating put her back into the van of the fighting craft of Lake Ontario.

But the real eye-opener was that young Finlander *Merenneito*, designed by Zake Westin, of Hanko, for the Scandinavian Gold Cup, 1927, and brought to the lakes by Commodore Gooderham, of the Royal Canadian Yacht Club, merely to give an ocular demonstration of what manner of yacht the International Rule produced in the Six-Metre Class. *Merenneito* is a "Six," and naturally out of her pew in any Seven-Metre fleet. She was raced twice. On the first occasion, handled by that past-master of international racing, Rear Commodore Norman R. Gooderham, she waded out to weather of all competitors in the Seven-Metre division in the windward work, and ran and reached with them sufficiently well to have the race in her pocket on the calculation of time allowance at the end of the first round. Having "shown her stuff," with a crew utterly new to her nine various jibs and other gadgets, she was at this point withdrawn.

The whole R. C. Y. C. fleet, sailing together for the historic Prince of Wales Cup on time allowance, was *Merenneito's* next world to conquer. The little mermaid did the trick with ease, finishing tenth in order in a fleet of 14, and first on corrected time by a margin of 9 minutes over the next competitor and 35 minutes over the last. She was sailed in this race by Walter Windeyer, Jr., a champion dinghy sailor, who had never in his life before set foot on board a metre yacht. The Prince of Wales Cup is the oldest trophy on fresh water, dating from 1861. To win it is the highest local honor any R. C. Y. C. yacht can obtain. Commodore Gooderham was so appreciative of Mr. Windeyer's performance that he presented him with a very fine pair of binoculars — possibly to enable him to keep the next yacht astern in sight whenever he sailed a Six-Metre.

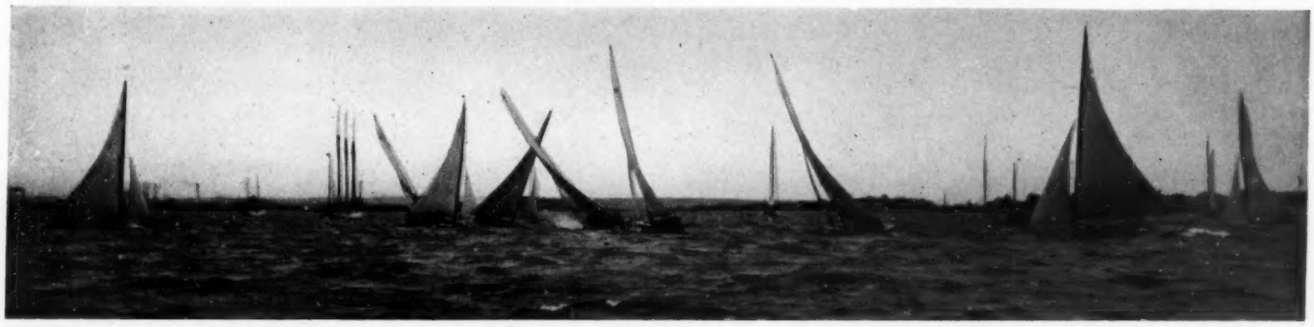
Merenneito was, of course, at the bottom of the Seven-Metre division, rating 19.7 under the International Rule. The Universal Rule, under which all the ex-"R" boats were at a flat 20 (for they all shaved the limit as closely as they dared), gave her a rating of 17.6 feet.

Too much must not be made of *Merenneito's* performance against the mixed fleet as indicative of what an International Rule product could be expected to do against yachts built under the Universal Rule. The fleet was an uneven one, of varying rigs, years, designs and measurements. Weather conditions were moderate, and the breeze held well or freshened, so as to help up the tail-enders. Nothing is drearier than time records of a performance long past, but there is a certain amount of interest in this examination of how the fleet finished, how the new classification worked out on corrected time, and how the various vintages fared, actually and eventually.

Yacht and Order of her finish	*Vintage*	*Designer*	*International Rating*	*Finish Time*	*Corrected Time*	*and Place*
10. *Merenneito* 6-metre sloop	1927	Westin	19.7	3:45:34	2:53:01	1st
8. *Eleanor* Class R sloop	1926	Benson	23.00	3:38:44	3:02:24	2nd
3. *Nutmeg III* Class P sloop	1916	Herreshoff	32.8	3:17:52	3:03:38	3rd
1. *Gardenia* 40-ft. w.l. cutter	1906	Gardner	41.2	3:04:35	3:04:35	4th
12. *Nayada* Class R sloop	1923	Benson	22.5	3:41:59	3:05:39	5th
13. *Scrapper* Class R sloop	1913	Owen	22.00	3:49:59	3:07:35	6th
4. *Cara Mia* Class P sloop	1914	Herreshoff	32.8	3:21:58	3:07:44	7th
9. *Vivia II* Class R sloop	1911	Owen	22.00	3:44:04	3:07:44	7th
2. *Strathcona* 40-ft. w.l. cutter	1903	Payne	40.6	3:09:31	3:08:49	8th
5. *Patricia* Class P sloop	1911	Owen	32.8	3:23:36	3:09:22	9th
6. *Stranger* Class P sloop	1916	Owen	32.8	3:24:33	3:10:29	10th
11. *Acadia* Class R sloop	1926	Roué	23.00	3:46:51	3:10:31	11th
7. *Yolanda* 40-ft. w.l. schooner	1923	Benson	36.6	3:35:46	3:28:35	12th
—. *Lillian E.*, Class R sloop	1923	Alden	22.5	Did not finish		

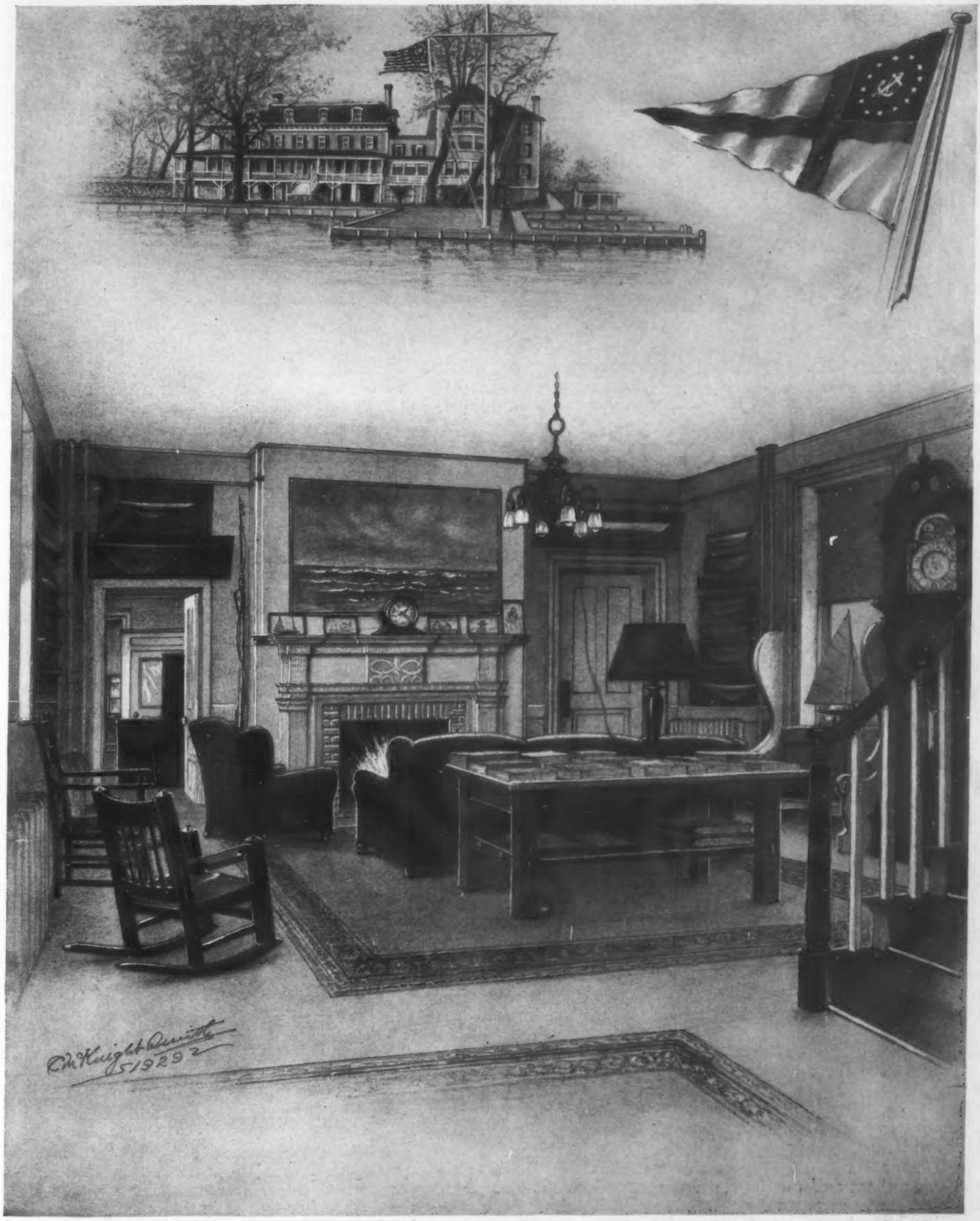
The Royal Canadian Yacht Club adopted International rating as a relief from the development of the Universal Rule which presented the paradox of new yachts being longer than old ones, having much more ballast, costing much more, and yet enjoying the same rating; in short,

(*Continued on page 120*)



Like many lake yacht clubs the Royal Canadian is strong in 20-raters of various vintages, each new boat larger and of greater displacement than the last, but all rating alike. What to do!

Prominent American Yacht Clubs



The Corinthian Yacht Club of Philadelphia is one of the largest and most active yachting organizations south of Long Island Sound. Picturesquely situated on the Delaware River, at Essington, below Philadelphia, the clubhouse is both spacious and homelike. Organized in 1892, the club has a large fleet of cruising yachts, and its burgee may be seen all the way from the Chesapeake to Maine. Each year there is an annual cruise on Chesapeake Bay and in 1927 the club sponsored the ocean race from New London to Cape May. Ernest duPont is the present commodore. The attractive lounge and model room is shown in the drawing.

Ambra VI is a standard 50-foot Navy motor sailer which was converted at Norfolk into a most satisfactory power cruiser. She proved a most comfortable, reliable, weatherly and economical craft.

The Conversion of the Cruiser *Ambra VI*

By Parker H. Kemble

ON November 17th, at 8:40 A.M., while lying off Cedar Hill, Virginia, my former boat, the *Ambra V*, caught fire through a bad misunderstanding between the cook and the gasoline stove, and was totally destroyed. The cook maintained that he could fill the gasoline stove while it was lighted, without danger, while the stove maintained that it could not be done. The stove won.

We arrived in Norfolk late Monday afternoon, November 17th. On Thursday we ran across a 50-foot Navy motor sailer which had just been sold by the Government. The following day we made our purchase. Saturday and Sunday were spent in smoking, measuring and sketching. Monday we were towed over to the yard of the Gas Engine and Boat Corporation, in Norfolk, and the work of conversion was started the day following, November 25th. On January 4th we were ready to sail and continue the trip south.

The *Ambra VI* was what is known as a 50-foot Navy motor sailer, 50 feet long, 12 feet 8 inches beam, and with a service capacity of 190 men, with service equipment — a bow gun and an engine. There had been a Navy sale of material at Norfolk a few days before I purchased her, so that a broker had not had the chance to strip the Navy bronze fittings, and she came into my possession in excellent condition. There was no engine.

These boats, as used by the Government, have four watertight bulkheads coming up to the level of the thwarts, and 1 ⅛-inch hard pine floors posted at frequent intervals, so as to be able to carry any weight which the boat will float. These floors were in particularly good condition, and as the builders estimated $250 to $300 for removing them and putting in a new floor lower down, they were not changed. As the watertight bulkheads of double diagonal tongue and groove siding with canvas between added materially to the stiffness of the boat, the layout was arranged so as to keep these intact as far as possible.

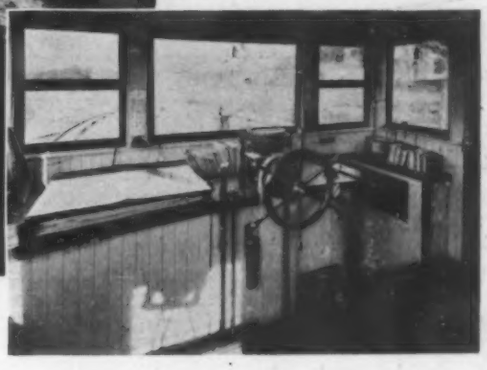
The gun platform forward, which was about two feet below the gunwale, was taken out; the forward bulkhead, seven feet from the stem, was built up to the deck level, and the forward space decked over, giving a fine forepeak and chain locker, and room for windlass and anchors. A side deck 13 inches wide was then worked in the full length of the boat and the house built on.

As both time and money were an object, the construction was made as simple as possible. Two by three yellow pine uprights were run as studs on the cabin floor to the top of the house, fastened to the deck as they went up. This gave a very strong, light framing which has shown no signs of strain in the four seasons' use of the boat.

The second bulkhead, as shown on the drawings, was 12 feet from the peak bulkhead. This was cut down to the cabin floor level, as a partition was going in at that point. This 12 feet provided space for two hanging lockers forward, 6 feet, 4-inch berths, another hanging locker on the port side and a toilet on the port side. On the starboard side, the layout was similar, but with a wash room instead of the toilet. Later, when preparing for the 13-months' cruise in 1926–27, the hanging locker on the starboard side was thrown into the wash room and a four-foot bathtub installed.

The next bulkhead was 10 feet farther back, and forward of the engine space. This was built up to deck level, solid, and the 10-foot space between the two formed the ward room, with a fixed berth on one side, with ample storage under, and a folding berth on the other. A desk, closet and bookcase were installed and other furniture added as convenient.

As I had had previous experience in contortionist work in cramped engine rooms, the engine was given five feet of headroom, raising the pilot house floor some 11 inches above the deck. After four seasons' experience this is the one point in the construction that I would change; four feet headroom would be ample, with a hatch in the pilot house floor. This would lower the whole pilot house a foot, with many ensuing advantages. The only engine available



The main cabin, or ward room, with a wide companionway leading to the pilot house, is more spacious than those usually found in a boat of this size, and very "homelike." Note the antique mahogany desk.

services would have been held some time previously.

The galley was originally fitted with a Shipmate stove, the recent experience on the *Ambra V* having placed a ban on gasoline. The Shipmate was used until, on the last trip to Florida, coal rose to $45 a ton and was available only in one or two places. This brought about the installation of a kerosene burner. The heat, noise and dirt of this contrivance we endured until nearly up to Chicago, when a telephone message to the Carpenter Company, in Chicago, brought down a Protane stove, which has proved a perfect joy, as well as an economy.

in Norfolk at the time for immediate service, at a reasonable price, was a 6-cylinder Van Blerck with six by six cylinders. This was acquired, overhauled, and installed and worked very satisfactorily for two years.

Abaft the engine room there remained 10 feet, 6 inches and a 30-inch after deck. The forward 5 feet, 6 inches of this space became the galley; the after 5 feet, crew's quarters.

The crew's quarters give ample room for two men, if desired, with toilet, wash basin and clothes storage. There is an independent hatch on top of the house. The after end of the house and the forward end are solid, fitted with two 12-inch Navy ports so that neither a head sea, or a following sea offers cause for worry.

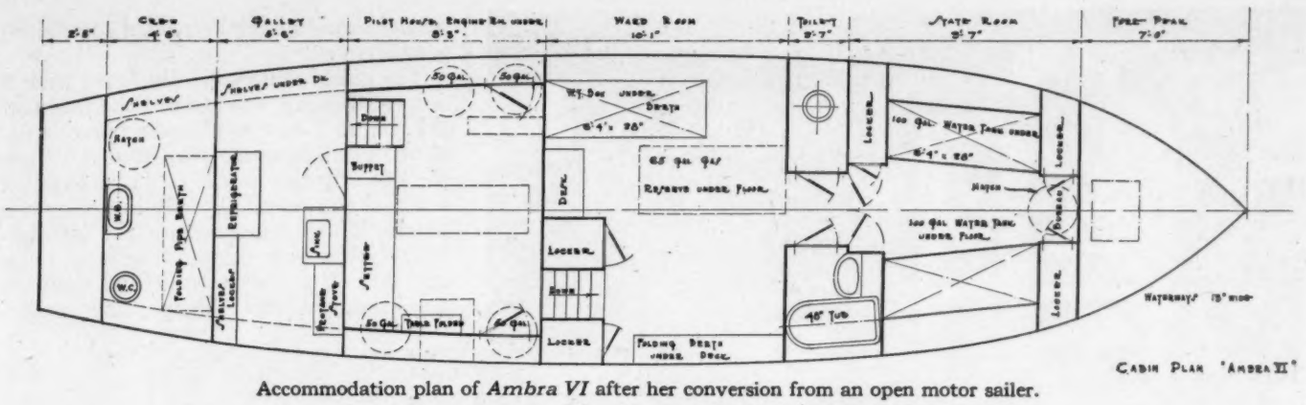
There is an escape hatch over the stateroom forward so that every compartment in the boat, except the engine room, has two means of egress.

This description, with the photographs and drawings, gives a general idea of the layout and accommodations of the *Ambra VI*. She has now been used for a number of cruises — one of 13 months' duration — and has proved

Looking forward from main cabin into stateroom forward. There is plenty of elbow room in both compartments. The stateroom has regular beds and a mahogany bureau.

The pilot house framing was made of the same two by three hard pine studding, doubled at the corners and the doors with a two-inch spacer block between, making a rigid and light framing.

The windows on the side forward of the doors, the front windows, and the large center window were fitted with ¼-inch annealed plate glass, not only for purposes of strength, but because long hours at the helm required freedom from the distortion produced by ordinary window glass and the consequent eye strain. The pilot house is so far aft that in all weather so far encountered nothing but spray has ever struck the windows. I feel confident that by the time water solid enough to break in the windows arrived religious



Accommodation plan of *Ambra VI* after her conversion from an open motor sailer.

extremely satisfactory. I should like here to pay my respects to the men in the Navy Department who designed her and laid out the construction of the hull. These motor sailers are wonderful sea boats, and considering the weights they were designed to carry, easily driven.

Some technical data is given herewith for the use of those who may be considering a conversion of this kind.

The full load displacement, under cruising conditions, with tanks full, is practically 18 gross tons. The draft, under hull forward, is 2 feet, 3 inches; 3 feet, 1 inch under keel, aft; 3 feet, 9 inches under skeg, aft; and she settles to 4 feet, 4 inches when running. Designed for deep water, these Navy motor sailers have no skeg or protection to the propeller. About halfway through the first season a four by six piece of yellow pine was drift-bolted and strapped to the after end of the keel, where it starts to run up to the sternpost, sloping downward enough to protect the propeller. This increases the draft only two inches, as that was the amount below and in front of the propeller tips that the skeg was carried. The result was that when we went aground, as we frequently did on the sand in Florida, the boat would go aground hard and fast on the tip of the skeg, but the rest of the hull would be afloat and no trouble was incurred in backing or working off.

There were two water tanks of 100 gallons each in the stateroom forward, one under the port transom and one in the starboard bilge. As there was no method of sounding these tanks, a trim indicator installed in the pilot house proved a reliable telltale as to when they needed refilling. With four people on board, this amount of water proved ample for a week's cruising, and it has been extended to 12 days on the west coast of Florida where watering facilities are scarce.

The gasoline capacity originally amounted to 260 gallons, consisting of one 60-gallon copper tank under the ward room floor filled from outboard, and connected to the engine through an Autopulse; and four 50-gallon standard gasoline drums set on end under the deck in the engine room, filled from outboard and giving gravity feed to the carburetor. Flexible copper tubing of ⅜-inch diameter was used for all gasoline piping, so installed that it was visible for inspection.

All doors and passages in the boat were arranged for a clearance of two feet in case of necessary removal of tanks or material. Two of the gasoline tanks, during the last cruise, developed pin hole leaks, and this clearance provision proved very convenient, as it required an hour's work to disconnect, take out, and throw overboard one of these tanks.

The anchors used were a 108-pound Eels stockless anchor, with 43 fathoms of ⅜-inch chain: a 110-pound folding Navy kedge with 30-odd fathoms of 4-inch rope; and an 80-pound so-called Navy Stockless anchor, as a kedge. The big anchor, or storm anchor, was used only once during the trip. The 108-pound Eels proved adequate on all bottoms, in all conditions.

Light was furnished by a 32-volt Delco system which also provided current for an electric flatiron for the feminine part of the party, a disk stove, and a coffee percolator. The coffee percolator was found very convenient in stormy weather underway, when chocked in a corner of the pilot house settee, for heating water for hot drinks or for diluting Campbell's soup when a hot lunch was wanted in bad weather. There was also an electric-driven motor bilge pump and a motor generator set for charging radio batteries, which, by the way, proved very useful in keeping the starting battery charged during one or two extended stays in harbor.

In the spring of 1926, in view of the 13 months' cruise, the old Van Blerck was taken out and a new six-cylinder Continental Van Blerck was installed, the cylinder dimensions being 4½ by 5¾. The Navy Department was using a 24-inch diameter by 16¼-inch pitch wheel on these boats for 800 r.p.m., but as the new engine was more powerful a 27-inch by 14-inch pitch wheel was fitted.

At this time, also, a Goodrich rubber bearing was put in the strut. This proved a joy. On previous southern cruises it had been the habit (born of necessity) to haul out about every six weeks and rebabbit the stern bearing, as sand, mud and grit wore it sufficiently to produce a disagreeable vibration. When the boat was hauled out in July, 1927, at Chicago, to fit a new propeller and shaft which had been sprung in the Illinois-Michigan Canal, the original Goodrich bearing (after Florida, the Gulf of Mexico and the Mississippi River) was found to be in such perfect condition that the spare was not shipped and the original bearing is still in the boat. Incidentally, in Chicago I installed a Monel metal shaft as a sufficiently long one in Tobin bronze was not available. This has also proved a joy, being much stiffer and entirely free from stuffing box wear.

Before starting south a series of speed trials was carried out on the measured course off Marblehead, under full cruising conditions, all tanks full, with the following results:

R.P.M.	*Miles*
700	7.15
745	7.60
815	8.081
910	8.97
1025	10.

The slip varied from 23 per cent at 700 r.p.m. to 26 per cent at 1,025. The normal cruising consumption at 8½-mile speed was four gallons an hour. The lubricating oil required was three gallons every hundred hours.

(*Continued on page 128*)

Emulating Columbus

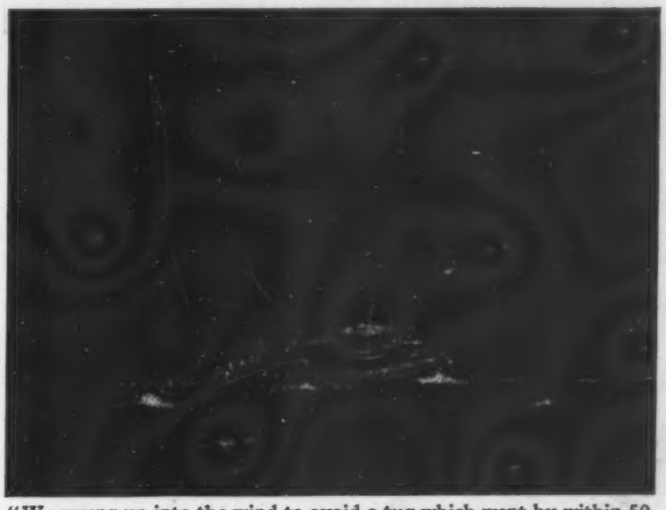
An Adventurous First Voyage Down Long Island Sound

By EDWARD L. AYERS

OVER a pleasant luncheon table we had been discussing the Spanish and Bermuda races, my companion having sailed in his own boat in the large class that went to Santander, while I had been crew on Dr. Goodridge's *Chimon* — a grand boat, that — in the Bermuda Race. The various courses sailed and conditions met with en route to Santander and St. David's Head had been quite thoroughly gone over when, with a laugh, my companion said, "It seems just a short time back when I thought of the trip from City Island or Manhasset, down the Sound to New London as the equivalent of Columbus' first voyage — and it practically was as far as I was concerned."

"Yes," I said, "and if you'll wait a few minutes longer I'd like to spin you the yarn of my first trip over that self-same course."

The response was favorable.



"We swung up into the wind to avoid a tug which went by within 50 feet of us — so it seemed."

"I was one of a syndicate of five who owned a big 37-foot over all yawl. I might say, also, that she was old — and, boy, I mean old — so old that we later discovered several convenient places where we could poke our fingers through the dry-rotted planks. However, we prized her highly. Three of us were over six feet tall, but she had headroom for all. To turn her into an auxiliary we had purchased a secondhand outboard. If becalmed, we were to place the motor in the dink, lash it alongside, and, *voila*, go merrily on our way. The only fly in that ointment was that the motor would run backwards only. In addition, we had a five-gallon water bottle, one of those pressure contraptions that are supposed to burn kerosene so that you can fry an egg — may Satan get the man who invented them — and a two-inch compass which was swung in gimbals in a very nice little wooden box. The way to use it was to line it up with one of the deck seams for a fore and aft position — and then be careful not to kick it. And we had a chart of Long Island Sound, one which stops short just west of New London, if you know your charts. And thereby hangs a tale.

"This trip was to be made the week-end before the Yale-Harvard boat races. The plan was to get the yawl to New London and leave her in 'Junky' Fleischmann's basin until the following Friday. We then expected to see the races in her.

"Jay, Bill and I joyfully and hopefully started from our mooring at Manhasset for the great voyage to New London. We had discreetly let it be known that the astounding adventure was about to begin and could not understand why the New York and out-of-town press had not sent reporters and photographers to see us off. But we went without them, and considered it their loss. Three items of equipment I neglected to mention. Parallel rulers — which we did not know how to work, so that they were relatively unimportant — a spot light with a storage battery, and five gallons of best grade pure grain alcohol. This was used in conjunction with a Gordon gin bottle that was decorated with a pencil mark not quite half way up the label from the bottom. Recipe: Fill to the pencil mark with alcohol, put in the drops for flavor, fill with water, shake and let stand for five minutes. Result — ten-year-old gin.

"Saturday afternoon was auspicious for our start, with sunshine and a gentle sou'wester. Before darkness came we put in at Stamford. That night it came on to blow, from the sou'west. So we put down our best anchor and went ashore, where we found a dance and entertainment. The ship being still fast to the anchor, we shoved off at four in the morning. It took some time to beat out of that narrow channel with a light breeze. Sunday was marvelous, though by late afternoon we were still a long way from New London. In fact, we were about ten miles west of New Haven. At this point we put Jay ashore, as he had to be in New York that evening. I rowed him in in the dink. We beached among some good-sized stones. The shore was faced with great rocks and many rose out of the water well offshore. Among and around these Bill sailed the good ship *Butterball*, while Jay and I looked on from our position on the rocks, imagining and wishing to Heaven we were pirates — pirates taking a good look at our ship before terrorizing the countryside with a raid. Jay said good-bye and shoved me off. Making the dink fast astern, I noticed a bit more water in her than when we started, but not enough to matter, so I let it go.

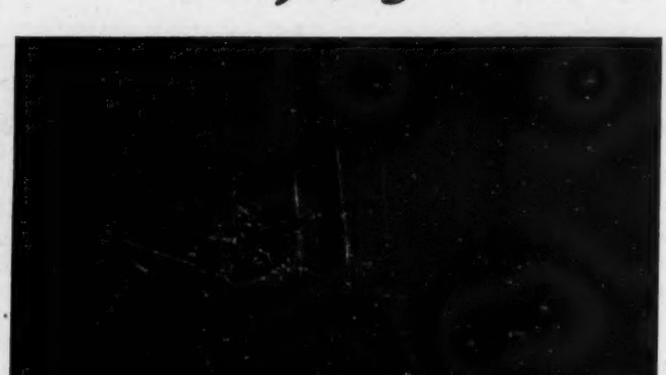
"At sundown we were just between the New Haven breakwaters, headed for the open Sound. It was then that Bill said, 'What do you think, Eddie; shall we sail all night?' I shivered inside, but answered with gusto, 'Why, certainly, if you want to. You've been in New London and will be able to identify it when we get there.'

"'Yes, I guess I can,' he said.

"Neither of us had ever sailed at night before, but both were ashamed to admit that the prospect scared us. So off we went. Picked a light southerly and headed for Branford Light, which we reached about dark. An hour after leaving Branford the wind freshened and worked a bit to the eastward. I took a strain on the dinghy painter and found it very heavy. Heaving-to, we found the dink full of water — evidently a hole had been put in her when I put Jay ashore. So the dink was laid over the bow with a rope passed around it.

"The night was pitch black, cloudy, and no moon. The little compass was lined up on the cockpit floor and we had the spot light for an occasional look at it and the sails. Half an hour after putting the dink over the bow we

stuck our nose into a sea. I jumped forward to save the tender, and the painter fed through my fingers, burning my hand, as I slipped overboard with the boat, but with one arm through the rigging. The decks were of canvas, painted, and very slippery when wet. Bill had come up into the wind and was yelling his head off when I climbed aboard. He thought I had gone for good. It was so dark he never could have found me. We couldn't even find the dink five minutes later, though we searched with a powerful light for half an hour. On the strength of that, we made some ten-year-old gin to soothe Bill's shattered nerves and warm me up. Boy, but it was dark. I remember that I held my hand three inches from my face and that I couldn't see it. We were frightened all the time for fear something would run us down, or we'd run into something, — a boat or the shore, because we certainly were not sure of where we were. In fact, the more the night progressed, the less we knew. We discovered that by placing the tiller in a certain notch in the comb the ship would sail herself. This we did and we both went below to smoke and chew the rag. This lasted a short while. Then, Bang! Crash! Slat! Boom! Bill sprang for the hatch and landed on the tiller; I, on the spot light. The ship had come up into the wind, gone about and was paying off for a jibe when we caught her. A jibe in the strength of wind we had then would probably have taken her sticks out. After that we stayed on deck.



"I jumped forward to save the tender, and the painter fed through my fingers as I slipped overboard."

"A little later I was aroused from a dream of palm trees, sandy beaches, beautiful senoritas and doubloons by Bill's vociferous, 'What the hell!' as he swung up into the wind and avoided a tug which went by within 50 feet of us — so it seemed. Actually, she was probably 100 yards away. For some unaccountable reason, only her port and starboard running lights were burning, and we had failed to see them. Evidently, they had not seen our feeble lights at all.

"I had the tiller and was gazing into the dark night ahead — wondering if we were on our course, and where. Suddenly, out of that stygian blackness, leaped the most awful sound I've ever heard — a deep-throated, booming, terrifying lightship siren. Cold shivers chased up and down my spine. It seemed right on top of us. Then we saw the lights. Lights meant nothing in our young lives! After he had recovered from the first shock, Bill shouted, 'Oh, boy! That's Bartlett Lightship and we'll soon be in New London.'

"'Hurrah, this old packet has been making about 13 miles an hour,' I answered. Since we had estimated 15, it didn't seem so bad.

"Of course, we had come to the end of our chart, so all navigation after that hinged on our pilot, Bill. Half an hour after passing the lightship I was surprised and terrified to see the water all around us churned up and foamy. 'Bill,' I cried, 'we're on the rocks.'

"'Don't be silly,' came the cool response; 'it's only a big school of fish.'

"But I was not convinced, as the fish were not visible — not even to my beloved spot light. Before I had time to find the lead we had sailed out of the rocks — or the fish. But it left a gloom of uncertainty, or at least a panicky feeling. A little later I suggested anchoring. Bill agreed, and we threw over the hook, not sounding first. The anchor brought up in about six fathoms and we turned in. Oh, boy!

"I awoke about two hours later, 5 A.M. to be exact, and went on deck. The fog was so thick I couldn't see a thing. An hour later I could make out the shore and a couple of lighthouses, so I called Bill.

"'Well, Eddie, my boy,' said Bill, 'looks like we're there.' So I patted the old *Butterball* on the deck and said softly, 'Good girl.'

"After a good breakfast we sailed in toward the westerly lighthouse. The breeze had almost died out and we just had steerageway. Two stone breakwaters jutted out from the shore; the westerly one straight, and the easterly straight, and then diagonally northeast. The wind and a current that seemed to be running made it inconvenient for us to go in between the breakwaters, which we imagined was the way one might go, so we started around the easterly side. All proceeded well and calmly until we rounded the end of the breakwater, which we thought was the way in on account of some spars we could see, when — Bump — bump bump — bump! And there we sat, with mud swirling all about.

"No wind to speak of, no dinghy, no one in sight. We discussed the merits of the situation for perhaps half an hour when I discovered, by means of a boat hook, that we had water under the stern but not under the bow. What to do? Moved the anchor aft to the counter and pulled up some iron pigs we had buried forward. Thus, eased in the bow, she floated off. We reached the channel marked by the spars and went up river but could discover little civilization and no one in sight. Rain! How it did rain! Sheets, buckets, torrents. And the old mainsail gathered it all in for us on deck.

"Finally a motor boat hailed us and came alongside. 'Where is the Griswold Hotel?' says Bill.

"'The what?'

"'The Griswold Hotel.'

"'Oh, you mean the Griswold over to New London?'

"'Isn't this New London?'

"'Naw,' said the visitor, 'this here is Saybrook, on the Connecticut River.'

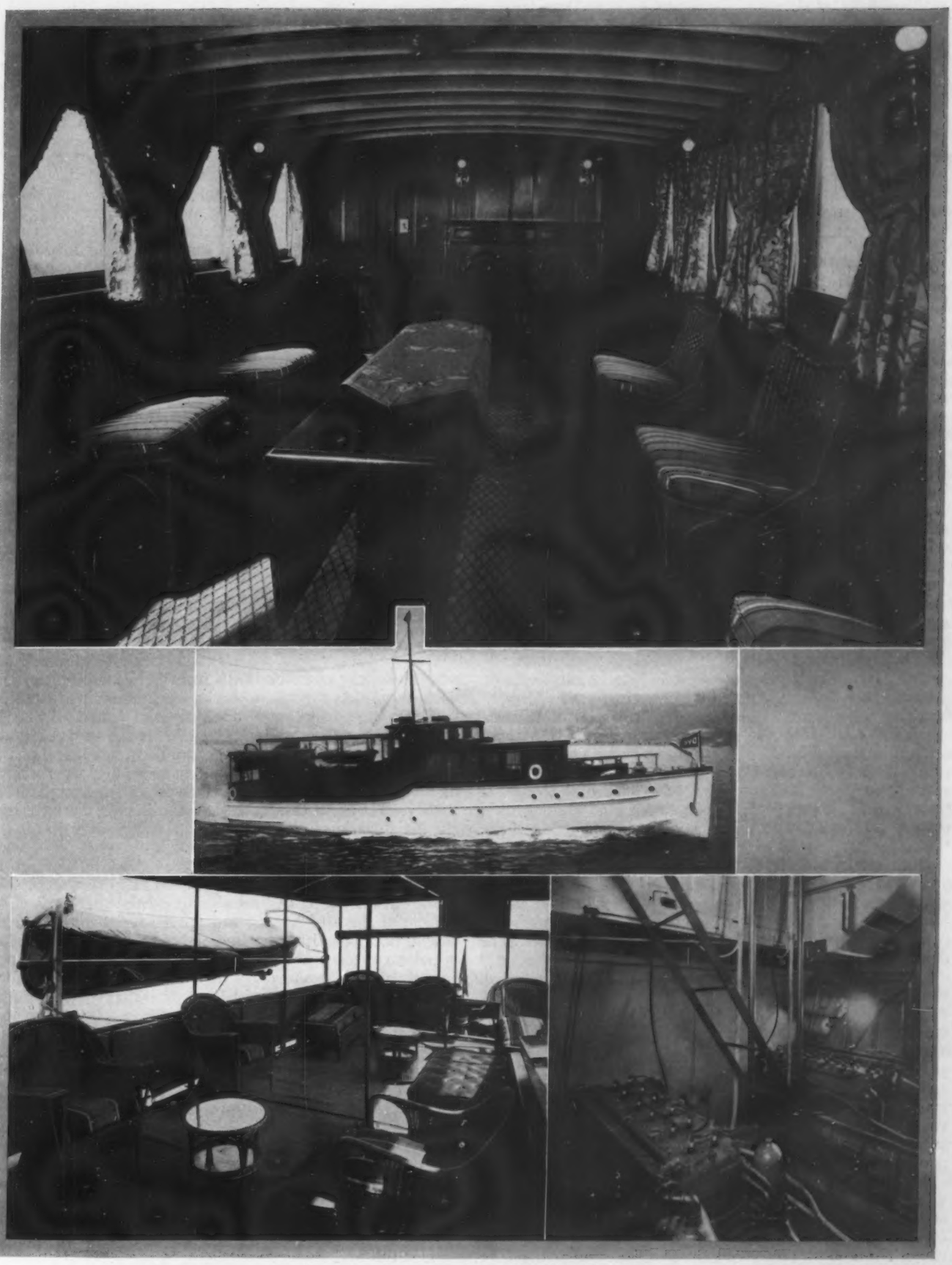
"'Well, that's just what we were looking for,' quoth Bill. 'Come aboard and have a drink.' This was but two bells of the forenoon watch, but the sun wasn't out and we had no yardarm.

"Out through the breakwaters, the right way this time, and into the Sound, where we drifted all day within sight and hearing — worse luck — of Cornfield Lightship, the very same as had been identified as Bartlett's the night before. Food got low; cigarettes ran out; we were wet and a bit disgruntled. About five o'clock along came an oyster dredger. In answer to our hail he came alongside. We explained our predicament. Our cash being low we dickered a bit and finally the dredge skipper agreed at the price of five dollars and a quart of gin to tow us to New London.

"How the fog set in and our dredge pilot found his buoys and channels around Bartlett's Reef; how we finally got to New London; how we dragged the *Butter-*

(*Continued on page 118*)

A Sturdy 75-Foot Power Cruiser



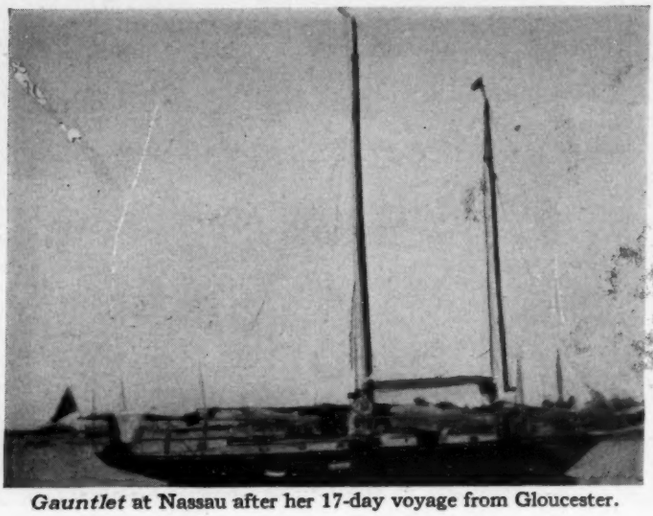
Frances S III is a 75-footer which was added last season to the large fleet of cruisers flying the burgee of the Detroit Yacht Club. Owned by Paul W. Seiler, of Pontiac, Michigan, *Frances S III* was designed by John H. Wells, Inc. Her layout shows the maximum in accommodation and comfort for her size, and includes a large deckhouse dining saloon, an enclosed pilot house, a spacious, well shaded deck, and several staterooms for owner and guests. She is powered with two Petrel 6-cylinder Sterling motors.

Southward in Summertime

Of a June Cruise in the Old "Gauntlet" from Gloucester to Nassau

By CAPTAIN DINGLE

GAUNTLET reversed the customary order of things by sailing for the Bahamas in June. Her log may add a bit to the available data of summer cruises southward, outside, of course. After wintering in Nantucket, a stay made necessary by damage sustained in the August hurricane of 1927 while off Cape Sable, Nova Scotia, the schooner was ready for sea by March — that is, ready to run over to Gloucester to haul out. After resting for months under the conviction that the vessel could be hauled out in the ancient whaling port, and having installed a new motor there which required a different propeller, it was found that she could not be taken up at all; so Gloucester it had to be.



Gauntlet **at Nassau after her 17-day voyage from Gloucester.**

In the fishing port a new rudder was shipped, and the schooner was cleaned, painted, and overhauled generally. Twice she was boarded by Revenuers in the harbor, once the day she was launched from the ways, her decks all nice wet paint. The skipper's temper was soothed tremendously by the sight of a nice blue suit of uniform all mahogany stain and deck color. It enabled him to look tolerantly upon ruined deck and cockpit paint. These people sometimes make themselves damned nuisances. On the previous visit the cabin floor was taken up and the bilge water tasted! (Note: Advice to yachtsmen: Mix a gallon or so of cyanide with your bilge. It preserves the timbers.)

But, southward! In Gloucester two old friends in Gid and Tiff appeared. They could go to Nassau if the schooner could wait until June 15th. It was then April. Summer voyaging into those latitudes did not offer a pleasing prospect. But these were good shipmates. The delay might, perhaps, be put to good use. It was, in a degree. In Marblehead a new bilge pump was installed, the biggest hand rotary, and a better pump or a worse bit of work never went into a seagoing vessel. Two days at sea the joints of the brass piping began to leak. The *mechanic* who put it in — he came from a well-known yard — said it would probably leak a bit, but would corrode up. As a matter of fact, when in Nassau the work was taken apart and done over, two of the vital connections, below waterline, of a 2-inch pipe were found to hang together on less than a single full turn of thread! But this is overrunning the distance.

When June 15th came around, the crew came aboard, all bagged and oiled and booted like pukka South Street sailors. On the 16th, a flat, calm, Saturday evening, the *Gauntlet* slipped out through the Marblehead Armada under the smooth power of her new reduction gear motor. That's a fine gadget for heavy auxiliaries. The ancient *Gauntlet* is seventeen ton, and watersoaked with 30 years of moisture, and that Super-Four Universal drove her along at so nearly seven knots that the difference can be allowed for "coming up."

Now and then a breeze promised; the motor would be stopped; the breeze would sigh and die. It was midnight before Highland Light came on bearing; thence, it was motor all the next 24 hours to Vineyard Lightship. From abreast of the West Chop to the Lightship the wind came in hard and gusty, a dead muzzler, and to ease the motor and conserve fuel the schooner thrashed down the Sound under full lowers with motor at half throttle to help her to windward. It was wet, as only a windward slog with power aiding can be.

Departure was taken from the Lightship at midnight, June 17th, wind west, fluky, and mostly light. This was the way it went: 24 miles in four hours, then 7 miles in two hours. Much the same all through the 18th; then, after lying hove-to under the foresail to save the spare gasoline tanks from being washed off the deck — another bit of lubberly workmanship, fastening those tanks — from noon to midnight of June 19th a level 100 miles went on record. *Gauntlet* has always been an amazing boat in heavy weather; in the first revival of the Bermuda Race she hung up a day's run, by observation, of 198 miles; that was when seas were tall and winds blew lustily a bit abaft the beam. It's another yarn for the old, short-rigged lady, when breezes "blow yently" and she has to draw her skirts close.

It was the skipper's idea to cross the Gulf Stream at once, seeking strong winds offshore. The notion seemed to work out all wrong at first. About all that accrued was a couple of days of fierce head winds and big seas which might not have been so bad if bound to Bermuda, but which were too much on the nose for Nassau. The reckoning of June 21st showed a distance logged of 185 miles, but only 125 in a straight line, and that three or four points to the eastward of the course.

Gid and Tiff had never seen the blue of the Stream. They began to grumble. It was like the flying fish. A blooming bit of sailors' romancing. All they had seen while crossing the mighty Stream was a sea of rugged hillocks that were either smashed into white, or laced with froth so that the magic blue had to be largely imagined. No smiling skies, no sapphire sparkles deep down when one looked under the counter. Barometer ranging between 29.60 and 29.98 through two periods of 24 hours, rising and falling with scarcely any noticeable alteration in weather, and scarcely any divergence from a regular upward and downward trend that began with noon of June 20th and ended about noon of the 22nd at a reading of 29.98.

By noon of the 22nd the Gulf Stream was again entered — only its fringes — but enough to prove its existence to

Brisk sailing with wind abeam.

Bilge water — or what?

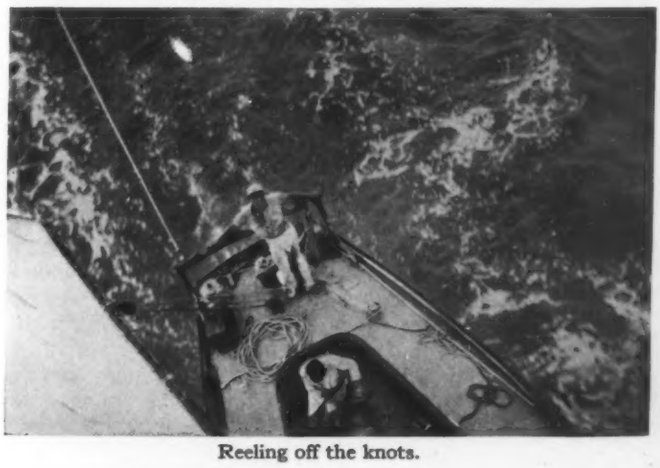
Dolce far niente.

doubters. The first flying fish came aboard, too. It was a large day. Gid and Tiff celebrated by going overboard: nearest land, two miles off, straight down; next nearest, Hatteras, 210 miles straight across the Stream. A schooner loafing along at four knots is flying to a swimmer unaccustomed to the deeps of the ocean. An end of the mainsheet was very welcome to the swimmers.

A slant helped with a run of about 65 miles, almost due south. But the uncertain breeze never gathered strength, and it again headed the schooner. By June 24th the skipper, in desperation, gambled for his wind, and stretched away almost southeast until, by noon of the 25th, Bermuda lay due east, only 200 miles distant, and it looked as if the gamble had been a dud. But the wind faired then. Never strong, yet it came fair enough to carry a fisherman's staysail for five days of real summer sailing — fair on the course, with daily plunges overside, no pumping, wide open, airy interior, and lines full of drying bedding and clothes. That is one of Old Ocean's little prizes. He takes the small boat sailor by the lugs, hauls him around, half drowns him, scrapes his hands raw with lee-sheets, knocks seven-bells out of him with sharp corners, and puts salt water boils on his stern, with wheel tricks that won't let him sit still for a minute; then, suddenly, when the victim has stopped cursing through sheer human limitations, Old Father Ocean rolls his hand across the rubbly waves, sticks up a diverting screen against the head wind, and winks to the sun to come out awhile. Then the sailor chucks his oilskins and boots, smokes a dry pipe, eats real grub and sleeps full watches below until he gets full of self-esteem. That's the cue for Old Ocean to wink his other eye, take down his screen, and kick the sea into a devil's dance again.

But about that pump job. When the old ship got into a bit of tumble-water, and started to leak her regular amount, about 20 gallons in 24 hours, the new pump took care of it in fine style. In the *Gauntlet* the bilge pump is at the galley sink, with a clean salt water supply from outboard in the same line. Of course, each has its own valve, and each is an efficient gate valve. When clean salt water is wanted for culinary or cleaning uses, the bilge valve is kept shut, the other opened, and the rotary pump pours a good stream of water into the sink or the pot, whichever is convenient. When bilge must be pumped, the outside intake is shut, the bilge valve opened, and a one-and-three-fourths-inch stream flows out on deck through the cabin trunk. If desirable, the sink pipe can be left open, too, so that the full capacity of the pump is lifted from the bilge. The pump will lift and throw 20 gallons a minute at full pressure. More often a pumper turns up about 60 revolutions a minute, which lifts nearer 15 gallons. Anyway, the pump amply takes care of the leakage. You lucky owners of new boats — I mean those which do not *leak* — may sit back and grin at this talk of leaks. *Gauntlet* was 23 years old when the present skipper bought her — abandoned; out of Register; ready for scrapping. Since then she has logged 20,000 miles of deep-water, with never a limit to her objective except the will of her skipper. She leaks a bit, will always leak, and will get no younger; but, if she gets off the reefs where the last September hurricane hurled her — and her skipper will bet that she will — the old lady is still good to complete the half century if the rotary pump holds out.

Anybody can pump her free, standing beside the sink in a galley the full width of the boat, aft, with skylight and companionway, and full headroom. It's the easiest pumping ever done. And in case of emergency there's a regular old spear pump in the cockpit that will clear her in short order. And that's what we had to depend on when the beautiful work of that Marblehead pipe fitter revealed itself. For, instead of corroding up, those leaks began to spurt, so that they leaked as much as the ship herself.

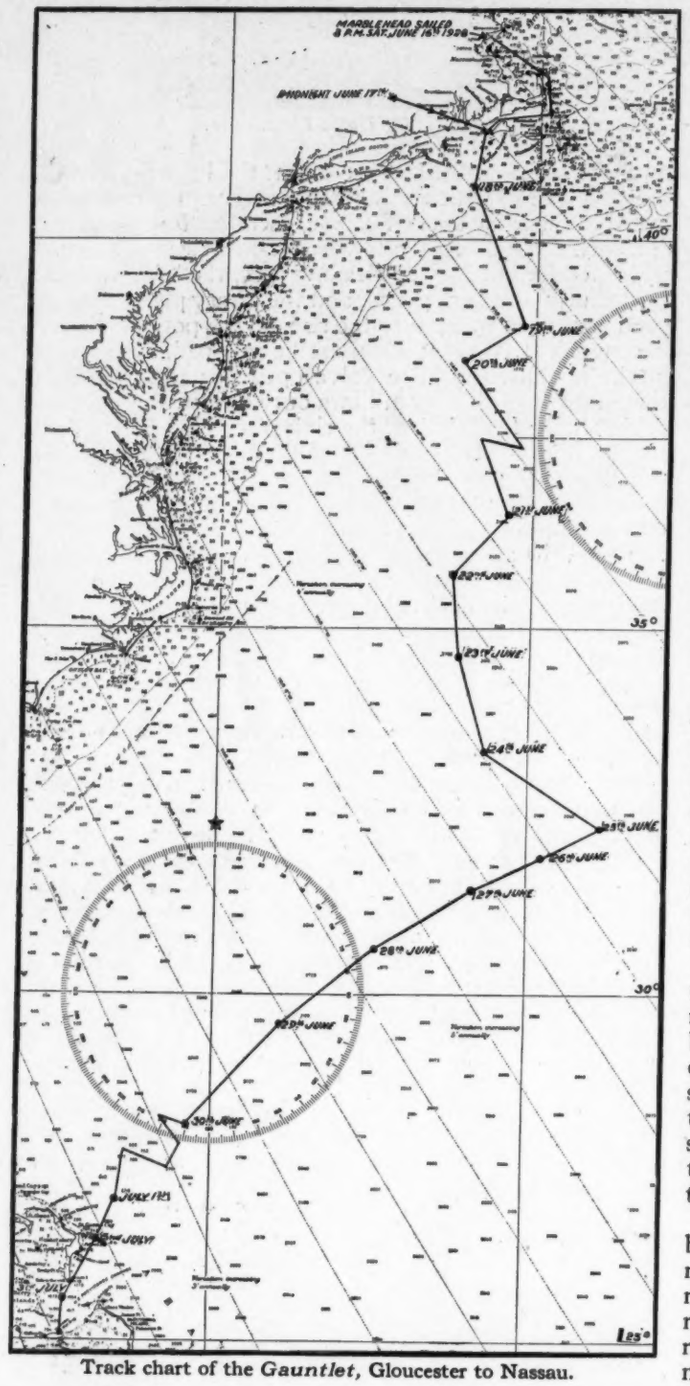


Reeling off the knots.

"There it is!" Picking up Elbow Cay.

The point where the two valves met was below water line. It was little short of murder to send a yacht to sea with that piece of work.

However, once the fair breeze came, nobody had to bother about pumping as long as both valves were shut. Those were days of *dolce far niente*, except for steering and preparing three meals a day. Steering was easy; the wheel could be left for hours on end, with just a bit of spun yarn across the spokes; cooking was no great task,



Track chart of the *Gauntlet*, Gloucester to Nassau.

with briquettes in a Shipmate stove that could be brought to fierce heat in five minutes. Cooking's easy in such a galley as the *Gauntlet's*, with a half-ton bunker feeding directly beneath the Shipmate, filled through a tight deck plate; a water service and big sink right opposite the stove — too far away for water to get warm from the fire — food lockers right at hand, to be got at without tying oneself into knots; and a skylight overhead to let in the breeze.

Food is selected with an eye to simplified cooking, keeping high quality first, and variety next. Cruising has reached such a pitch lately that it cannot be necessary any longer to list stores. Every owner of a seaworthy schooner, almost, makes a cruise during the summer, many of them at least as far as Nova Scotia, which is no deepwater voyage, of course, but calls for careful provisioning. He knows what to take. But it still may serve the cruising sailor a turn to remind yachtsmen generally that potatoes will last a long time if care is taken to see that only dry, sound ones are selected, and they are stored in a well ventilated locker free from wetness. Cabbages will keep under the same conditions; carrots can be kept for weeks in a sand box — and, man! how they help a stew! Onions too, same as spuds, dry, sound, and carefully watched for soft spots. Beets and Brussels sprouts are to be had in tins, very good. And for night watches, to change with plain bacon and beans or slumgullion, the Frankfurters and sourkrout combination in jars is fine. Always have a metal box, airtight lidded, for the current supply of hardtack, and keep it handy to the companionway. In *Gauntlet* there is always a summer sausage — Salami style — hanging on a hook above the hardtack box. Half an inch slice of this will keep a helmsman chewing for ten minutes, and his belly says "Thank you!" — assuming, of course, that he's a salty sailor, and no Saturday afternoon pond sailor. The various coffee essences, or substitutes, are scarcely worth carrying. If it ever gets too bad for real coffee to be made, try Bovril, or other beef extracts for a change. Strong tea is much better than either if you can drink tea. There is more reason than mere sentiment or prejudice for the high place tea holds in all British countries. It's a real bracer.

There! Another wide cast from the course. That *dolce far niente* period lasted from June 25th to June 30th, and the course all that time was pretty well towards Elbow Cay, Great Abaco, the proposed landfall. It was not all a fair wind, but when it came near fouling, and in order to carry the light sails as long as possible, the course was changed slightly on the polar side, so that after all the net result was faster traveling and the shorter distance consequent on leaning towards a Great Circle track. Perhaps that made little difference. Never mind, it did help rather than hinder.

Flying fish, porps, and one lone shark. The swimmers never saw that shark, so, in line with their method, they refused to believe in him. They bathed every day. The sea by now had taken on the clear tropic blue; overhead for days the tropic birds circled; nautilae floated like gorgeous soapbubbles armed with caustic whips; at any time during the sunlit hours somebody could be seen tucked away in a shady corner on deck, reading a book There were attempts to get Arlington time; and general radio failure through humidity.

The skipper had a new chronometer, rated for six weeks before sailing, which was supposed to have an average rate of 2.5 seconds daily. While in port, with the radio receiving time every day, the new timepiece had been rated by the skipper, and revealed a disturbing lack of regularity for any watch supposed to be of value to a navigator. As it was a new watch, however, allowance was made for it to settle down; after six weeks in the hands of an expert chronometer adjuster, it was taken aboard with the not very encouraging report that it kept an erratic rate, but might be all right if an average was allowed of 2.5 seconds daily. Sailing day being one day off and the radio apparently working, the unsatisfactory

(*Continued on page 112*)

General view of the Salon Nautique, Paris, showing an American Chris-Craft in the foreground. American boats and engines were conspicuous throughout the exhibition.

The French Motor Boat Show

Third Salon Nautique Proves to be Interesting and Successful

By Robert B. Noyes

THE third Salon Nautique, or French Motor Boat Show, closed its doors on December 28th after enjoying a most successful week. Judging from the exhibits, the number of visitors, and the interest displayed, it was clear that the French public is taking the boating idea seriously. It was in every way a most creditable show, and speaks well for the spirit of the organizations which promoted it.

To an American who has seen most of the New York shows since the days of the old sportsman's exhibits, it was decidedly interesting, particularly in view of the influence of American ideas seen on all sides. The Star Class sloop *Talita* greeted one at the entrance. A little farther on one met a Chris-Craft runabout; a stand with Kermath motors and another with Scripps motors; a glorified Barnegat Sneakbox; a *Sea Bird*, built by Chassaigne of La Rochelle; exhibits of most of the American outboard motors; and even a skimmer labeled "Penn Yan" was seen. Many of the exhibits bore placards announcing the fact that they were finished with Valspar, while a number of boats were powered by Scripps and Chrysler motors. A number of practical-looking, raised deck motor boats had a very familiar look.

But that is but a part of the story. For among the great number of boats of all sizes and types shown, there were many of a type rarely shown over here. This was particularly true of the large showing of rowboats, from fat jolly boats to eight-oared racing shells, practically all of which were built of mahogany, and in all cases beautifully put together.

In the sail boat line, aside from the American types mentioned, there were a number of others well worth seeing. A beautiful six-metre, *Petite Aile II*, a winner at Cowes, was a delight to the eye. Then there was a 39-foot over all jib-headed yawl by designer Auroux, who also had plans, profiles and layouts of other craft on display. This 39-footer was a well built job, though to our eyes a little lean and lacking in deck space. Alongside her a seven-ton, bluff-bowed, gaff-rigged sloop by Janin seemed to be a husky job, but I doubt if the auxiliary motor would move her in anything but a flat calm, inasmuch as the two-bladed propeller was snugged up behind thick deadwood which had not been trimmed or faired up in any way. This craft was fitted with roller reefing gear, and the mast stepped in a tabernacle so that it might be quickly lowered when passing under a bridge.

Two small one-designs were shown, one of the Deauville Papillon classes, about 20 feet over all, and another a bit smaller. Both were planked with mahogany, and carried roller reefing gear on jib-headed mainsails. In both of these the construction was strikingly different from American custom. They were fitted with very neat metal floors and mast steps, which looked good. But the frames, which were very light, were not secured to the floors in any way. Neither were there any longitudinal members. As the boats were quite narrow, with heavy lead keels, it seemed doubtful that they would stand up under the severe wringing which they were sure to get. Most of these boats were highly polished, fancy jobs, though Caudebec-en-Caux exhibited a small, open, keel auxiliary, which was plainly built and finished, and appeared to be a husky and serviceable little craft.

The propaganda exhibits were most interesting. The

(*Continued on page 108*)

The *Bintang Satoe*, a Prau Bugis of the East Indies, slipping out of Singapore with a fair wind.

Another Bugis Sailing Craft

A Queer Craft from the Dutch East Indies, which Is Apparently a Descendant of the Old Galleons

By William Maxwell Blake

THE *Bintang Satoe* (One Star) is a Prau Bugis which sailed into the harbor of Singapore from the Island of Boeton, off the southeast peninsula of Celebes in mid-October, 1928. She was the first of the fleet to arrive with the tail-end of the southwest monsoon, bringing up a cargo of candle nuts, rattans, copra, sea shells, and deer horns.

I viewed her arrival, winged out before a favoring breeze, one late afternoon, paid her a visit the following evening and made friends with her headman and crew, getting permission to do what I liked regarding measurements and photographs.

Having examined my subject, I realized that to make plans to pass the critical eye of the Editor of Yachting would be no simple task, but patience and perseverance work wonders, and I found the crew of great help in many ways, a tin of cigarettes acting as a splendid incentive, especially in getting dimensions aloft.

The captain was named Nasam, the bos'un Lakaini, and the number one crew Arandu. The rank and file consisted of men and boys of all ages, to the number of 24. The long trip of 1,600 miles had taken 20 days, with seas so heavy that at times those on deck were lashed to their posts.

The vessel is 30 years old, built of teakwood and manned at Boeton. She has two rudders and two tripod masts. Judging from her general design, she is undoubtedly fashioned after some old day galleon that reached the present Dutch Indies in the mists of the past.

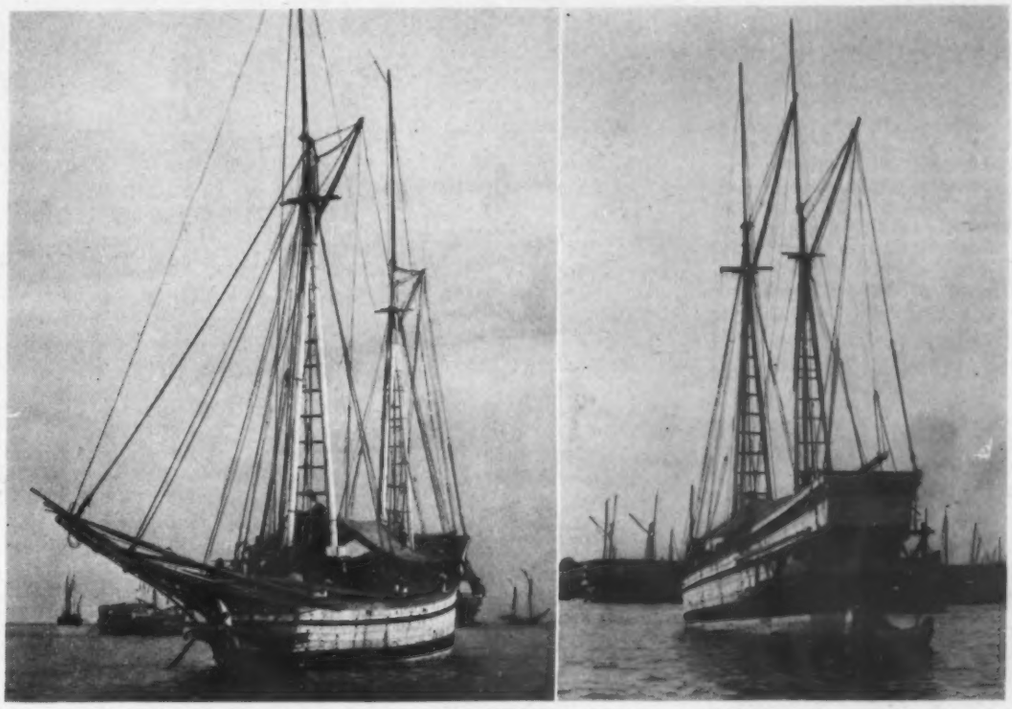
The standing rigging is of wire set up with lanyards, and the bobstay is also of wire hitched to the bowsprit at intervals to take up the slack. Her lower sails and inner jibs are made from Japanese duck and the outer jib and topsails of a material very similar to sacking, but of a more open texture. The main and mizzen sails are hauled out on the gaffs (which are practically fixtures) with rattan rings, and lashed at the luff to a bamboo made fast to the ladder steps between masts. They have no reef points and are brailed up in a squall.

The steering is done by a boat compass down in the stern cabin where the steersman manipulates the tillers, one by hand and one by foot, his only views being up the hatch above his head and through the ports to right and left. The rudders (or steering oars) are held in position by rattan strops with the tillers leading inboard instead of fore and aft.

No navigation lights are carried according to European standards, the only illumination being by a lamp suspended under the bowsprit when under way. The cables for anchoring are made from a palm fibre, black in color, 26 fathoms in length by two inches in diameter. The life-saving equipment consists of two dug-out canoes and bundles of bamboo. The canoes, which are not identical in size or shape, are dug out from logs similar to cedar, and are unpainted. They seemed very buoyant, and showed no signs of cracking or warping although exposed to the full heat of the sun.

The cooking is done beneath a roof rigged up inside the foremast tripod, the hearth consisting of a wooden box filled with sand and stones. The fuel is wood in small sticks. The water supply is carried in sections of bamboo, each four feet long by four inches in diameter, stood on end and lashed.

At the center hatch of the vessel a space about three feet square is left empty right down to the bottom. Any leakage is bailed out by hoisting up the water and discharging it into a wooden trough at one side of the hatch,



The *Bintang Satoe* anchored in Singapore, showing bow and stern views. From her general design, she was undoubtedly fashioned after the Dutch galleons of the past.

whence a wooden pipe takes it overboard through the ship's side. The hold is divided into compartments by beams, vertical poles, and cross battens. It was an obstacle race of a fearsome kind that I experienced in taking internal dimensions; the mosquitoes encountered were gripped by the fiercest pangs of starvation, and the smells were of such a nature that no pen can do them justice.

From what I gathered the Prau is about as weatherly as a haystack, but as her voyages are made with the favoring monsoons this failing counts but little and is more than compensated, in the estimation of her owners, by dryness and capacity of hold.

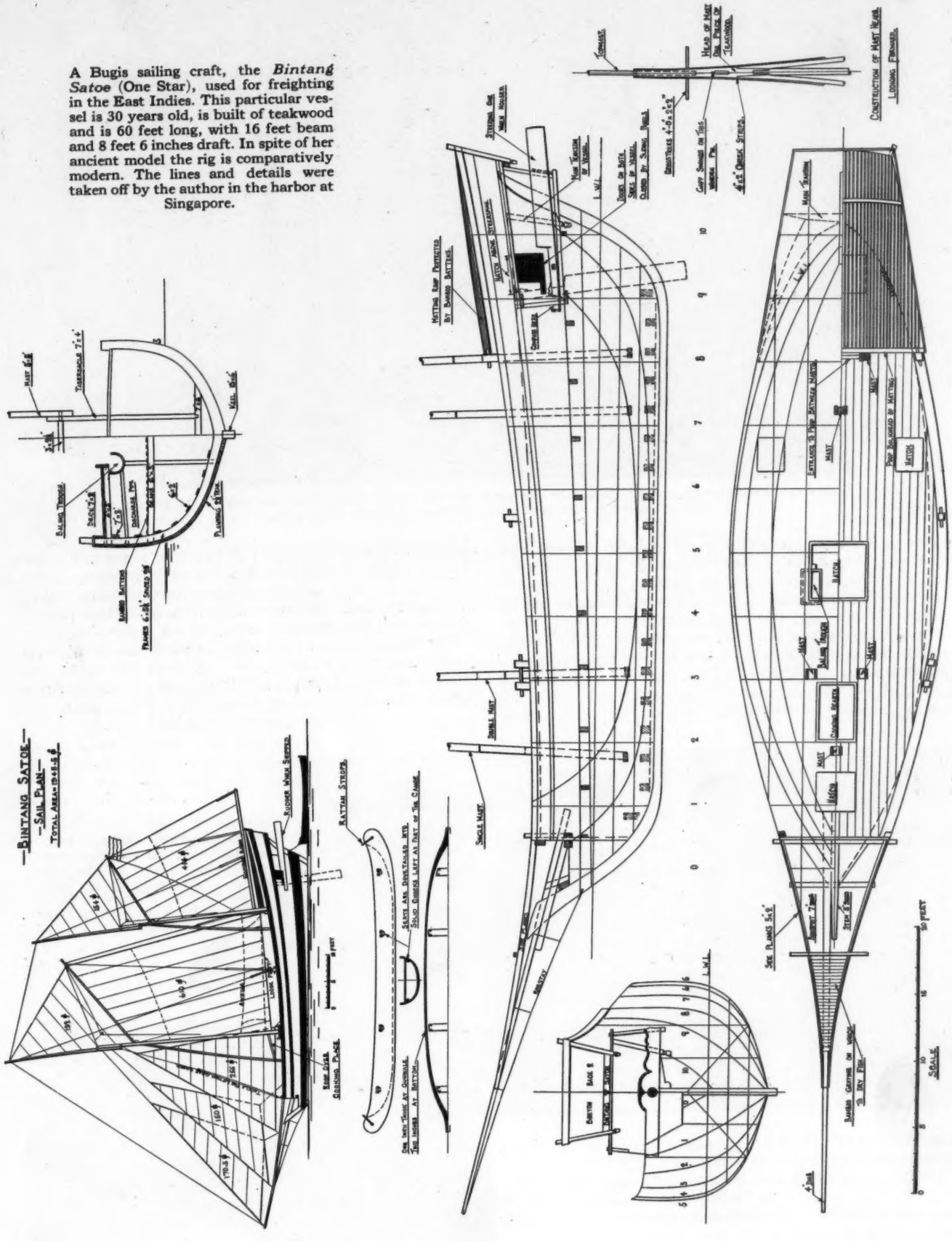
The *Bintang Satoe* sails under the Dutch flag and, after loading waterpots, cups and saucers, plates, matches, and other commodities required in the Celebes, will leave Singapore with the first of the northeast monsoon for Boeton. This island is about midway between New Guinea and Borneo. When one considers the voyage through the Flores and Java Seas, along the coasts of Java, Banka Island and Sumatra to Singapore and then back, one is filled with admiration for those undertaking the journey under conditions as primitive as those prevailing on board the *Bintang Satoe* and her sister ships.

The Bugis men are from a region which has acquired its civilization mainly from the Javanese. They are the greatest maritime people and traders of the Malay Archipelago, as well as good ship builders, but very passionate

(*Continued on page 122*)

The crew of the *Bintang Satoe* consisted of natives of all ages, men and boys, to the number of twenty-four. Below is a view of the port quarter showing stern gallery and the two rudders, or steering oars, lifted out of the water while at anchor.

A Bugis sailing craft, the *Bintang Satoe* (One Star), used for freighting in the East Indies. This particular vessel is 30 years old, is built of teakwood and is 60 feet long, with 16 feet beam and 8 feet 6 inches draft. In spite of her ancient model the rig is comparatively modern. The lines and details were taken off by the author in the harbor at Singapore.



Ground Tackle

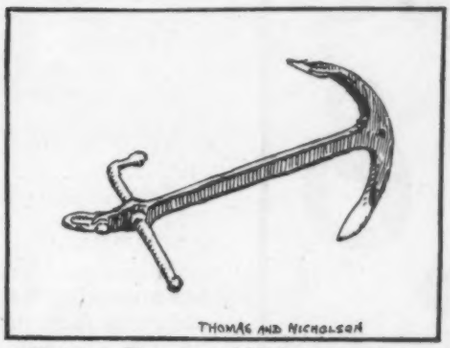
By E. G. Martin

IF there is one thing in a ship which is perhaps of more vital importance than any other, it is ground tackle. Even in the snuggest of harbors a ship has no real security if she has not good anchors and cables. Moreover, she is a menace to other vessels. Cruising men can recall occasions when, even with the best of ground tackle, they have stood for hours in the shelter of the companionway watching the ship, while the wind roared in the rigging and volleys of spindrift swept over her — watching, perhaps half through the night, to see that she did not drag. At such times the anxiety must always be very great, and there is no comfort except in the knowledge that the ship is riding to the finest gear obtainable. First-class ground tackle is costly, but if expense is a difficulty it is better to economize on anything else rather than on anchors and cables.

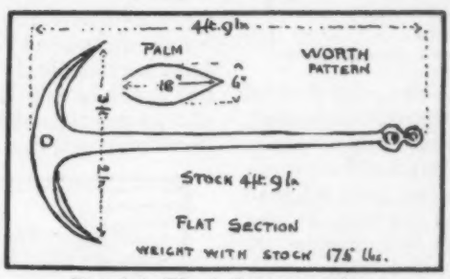
Two chief considerations in choosing anchors for a vessel of any given size are the general nature of the bottom in the waters where the yacht will usually sail, and the type of hull. For all-round purposes the patterns of anchors made by Thomas and Nicholson (Sketch 1) are very good indeed; these are a standard commercial article. Of special patterns, that designed by Mr. Claud Worth (Sketch 2) is excellent, and in general characteristics resembles the Thomas and Nicholson anchors. There is also a fine anchor designed by Herreshoff which has great gripping power in a sandy bottom. For rocky ground, fishermen use a creep made of soft iron, of which the prongs will straighten out should they become jammed in a rock (Sketch 3). The Trotman pattern was formerly very popular in yachts. It holds well but is awkward to handle, and deserved the name of "pinch finger" which was given it. This type is useful for moorings in places where it is necessary to turn down one fluke of an ordinary anchor (Sketch 4). Stockless anchors are compact, easy to handle, and hold well in very soft bottom, but they are very unreliable in small sizes, probably because they depend entirely upon their own weight for obtaining a grip. They are most excellent as stern anchors in yachts which sail in inland waters and canals where the bottom is usually very soft (Sketch 5).

A table giving correct sizes and weights for anchors and cables has been issued by Lloyds; it is based upon dimensions and displacement, but does not take model into account, and this is a point which should be considered when specifying ground tackle for a yacht. It is quite possible that of two vessels which would officially require similar tackle, one might, in fact, need anchors and cables of perhaps double the weight of the other. Windage, underwater profile, and area of lateral plane are the factors which mostly determine the specification for ground tackle. The form of the bow sections is also of some importance. Generally speaking, an old-fashioned yacht with a straight keel, short overhangs, and moderate freeboard is the type of vessel which rides most easily at anchor, for she sheers about very little and maintains a steady strain upon her cable. Centerboard yachts and those of racing boat type are apt to sheer about a good deal and, consequently, are more liable to drag their anchors. Each time the cable brings a vessel up short at the end of a sheer, she jerks upon her anchor and loosens its grip of the bottom, for she works it from side to side and so enlarges the hole which it has made in the ground; a straight pull of equal weight would not move it. In the case of a yacht which sheers about the best way to prevent her dragging is to put the extra weight of ground tackle into the cables rather than into the anchors themselves, and to let her ride to more cable than the depth of water might seem to demand. By this means the movement due to sheering will be prevented from reaching the anchor. Bow sections affect a vessel's riding because the sharper her vertical sections, the more leisurely are her movements when head to sea and the less does she jerk upon her cables.

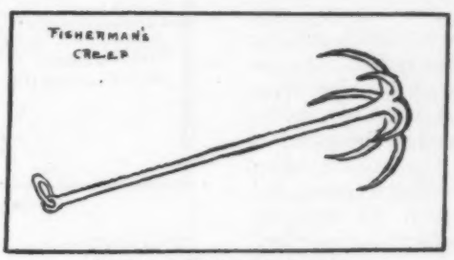
When a yacht is to be provided with ground tackle, the owner cannot go far wrong if he follows the instructions issued by Lloyds, and if he thinks fit to exceed them a little he will have the comfort of knowing that he has an ample margin of safety when riding out very bad weather. Chain cable is of three kinds — stud-link, short-link, and ordinary chain in which the links are not especially short (Sketch 6). For the purposes of ground tackle, carried on board, the yachtsman need concern himself only with the first two. Chain which does not have



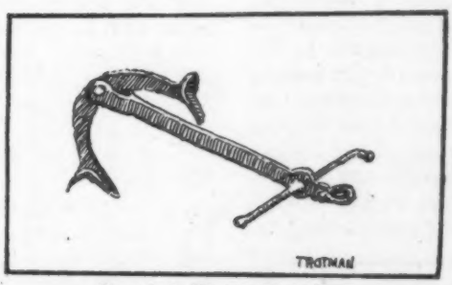
Sketch 1. Thomas and Nicholson anchor.



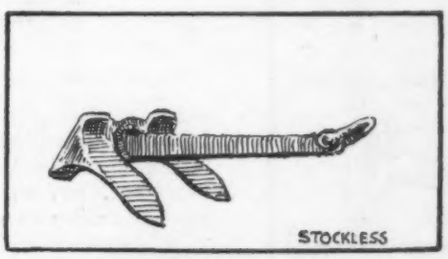
Sketch 2. Worth Pattern anchor.



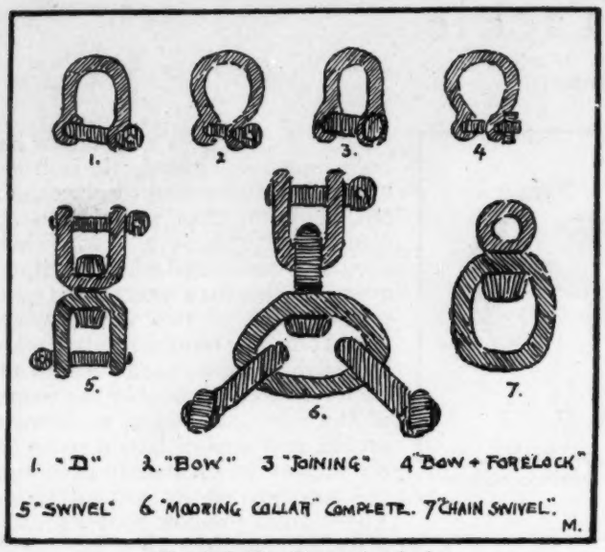
Sketch 3. Fisherman's creep.



Sketch 4. Trotman anchor.



Sketch 5. Stockless anchor.



Sketch 7. Shackles and swivels.

short links is bad, because the links are apt to get crossed and, when this happens, may break under comparatively small strain. Long link chain may be used for permanent moorings which remain stretched out, but not for swing-chains. Stud-link and short-link cable are both allowed by Lloyds, but stud-link is the better of the two. Taking half-inch cable as an example, short-link weighs 17 pounds per fathom, and the proof load is three tons, while stud-link weighs 13.4 pounds and has a proof load of 4.5 tons. In each case the working load is two tons. Thus the stud-link passes a severer test (2¼ times its working load, as compared with 1½ times for short-link), and for the same working strength is 21 per cent lighter. On the 75 fathoms specified by Lloyds for cable of this size, there is a saving of weight of 270 pounds, a valuable saving when it is considered that cable is stowed in the fore end of the ship. Heavy cable is a good thing in so far as it makes a ship ride more easily to her anchor and helps the anchor to hold, but the effect will be very much the same for weight if proportionally more cable is given, for instance, 30 fathoms of stud-link instead of 25 of short-link.

Chain cable is made in "shackles," *i.e.*, lengths of 15 fathoms. These are connected by "joining shackles" (Sketch 7). When the lengths are connected care must be taken that the bows of the shackles are nearest to the anchor, so that there may be no chance of the joining shackles getting hung up when the cable is running out. If this should happen the terrible jerk which follows may cause the cable to part or tear away some of the fittings forward. Various other shackles and swivels are used in ground tackle, and are made as shown in the sketch. Cable is measured by the diameter of the iron of the link; shackles and swivels at the bow, in the same way; hooks at the back. It is most important that shackles and swivels should correspond in strength to the cables they join. The following list gives proportionate strengths:

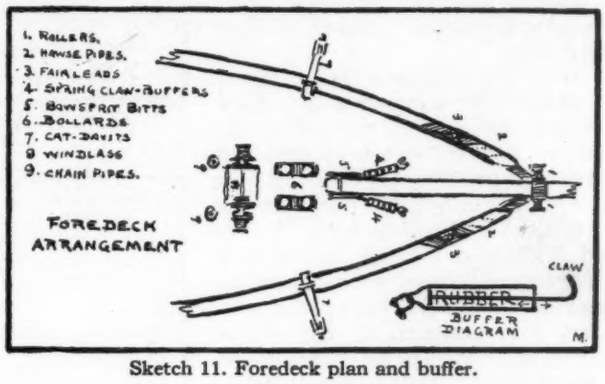
Link, diameter 1, is equivalent in strength to

Eye of eyebolt	1½
Shackle	1½
Ring-bolt	1¾
Hook (at back)	3½

The following are the working loads of chain swivels:

3/8"	1,804 lbs.	5/8"	4,816 lbs.
7/16"	2,688 "	3/4"	7,056 "
1/2"	3,584 "	7/8"	10,208 "
9/16"	4,032 "	1"	12,544 "

Thus a yacht riding to ½-inch stud-link cable, which has a working load of two tons, would require a swivel of about ⅝ inch in diameter if she were to moor to two anchors. It is well worth while carrying a swivel, and will often save much tiresome work in clearing the cables of turns. No one but an experienced ship's smith should be entrusted with the making of a swivel. The pattern used by the fishermen for their permanent moorings at Brixham is exceedingly good. The swivels and shackles which are made locally are found to be the best. They are not galvanized; the shackles are of the screw pattern and the pins are wired in.



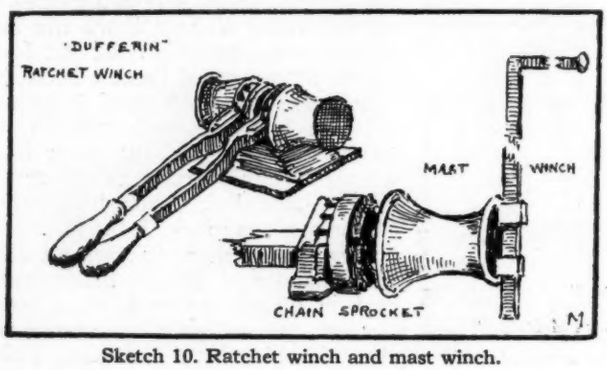
Sketch 11. Foredeck plan and buffer.

The following table gives Lloyds' requirements for ground tackle, and no more reliable guide is needed except in cases in which the shape of the yacht indicates that she will not ride steadily at anchor, and that it will be as well to provide her with heavier cable at any rate.

Yacht Tons Gross. Regd.	No.	Anchors No. 1 Weight	Anchors No. 1 Test	Anchors No. 2 Weight	Anchors No. 2 Test	Anchors No. 3 Weight	Anchors No. 3 Test	Chain-Cable Min. Size	Chain-Cable Test	Chain-Cable Breaking Test	Chain-Cable Length	Chain-Cable Length	Hawsers and Warps Size	Hawsers and Warps Length	Hawsers and Warps Size
		Lbs.	Tons	Lbs.	Tons	Lbs.		Ins.	Ton	Tons	Fms.	Fms.	Ins.	Fms.	Ins.
3	2	40		20				5/16	1 1/10	2 1/2	30	45	3	30	3
5	2	65		32				3/8	2 1/10	3 1/10	45	45	3	30	3
7	2	84		40				7/16	2 1/10	3 1/10	60	45	4	45	3
10	2	100		45				7/16	3 1/10	5 1/4	60	45	4	45	3
		cwt.													
13	2	1		70				7/16	3 1/10	5 1/4	60	45	4 1/2	45	3
19	2	1¼		80				1/2	4 1/10	6 3/4	60	60	4 1/2	45	3
26	2	1½		90				1/2	5 1/10	8 1/4	75	60	5	60	3
				cwt.											
34	3	1¾		1¼		65		9/16	5 1/10	8 1/4	90	75	5	60	3½
43	3	2¼		2	4 1/2	84		5/8	7	10 1/2	105	75	5½	75	3½
56	3	2¾		2½	5	100		11/16	8 5/10	12 3/4	105	75	5½	75	3

Not required

Note.—Anchor weights given without stock. Stock must weigh 25 per cent of anchor.



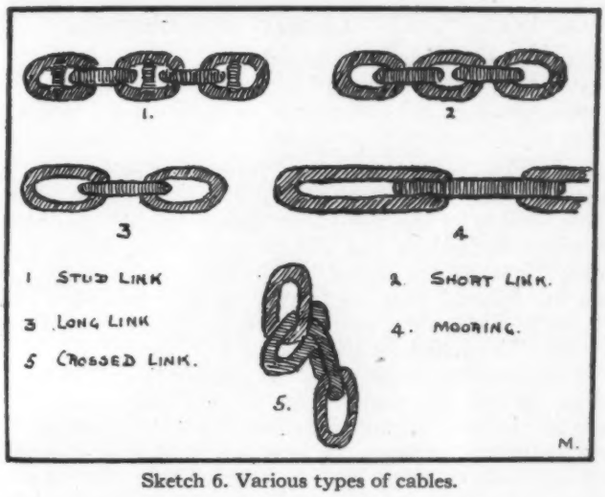
Sketch 10. Ratchet winch and mast winch.

In any but quite a small yacht one or two trawler's "dandy-bridles" are a most useful addition to her ground tackle, and in most ways they are to be preferred to heavy hawsers. They are made of 1¼ or 1½-inch galvanized flexible steel wire and are usually 22 fathoms long. The wire is greased and parcelled and then served throughout its length with lightly tarred small manila line. A thimble

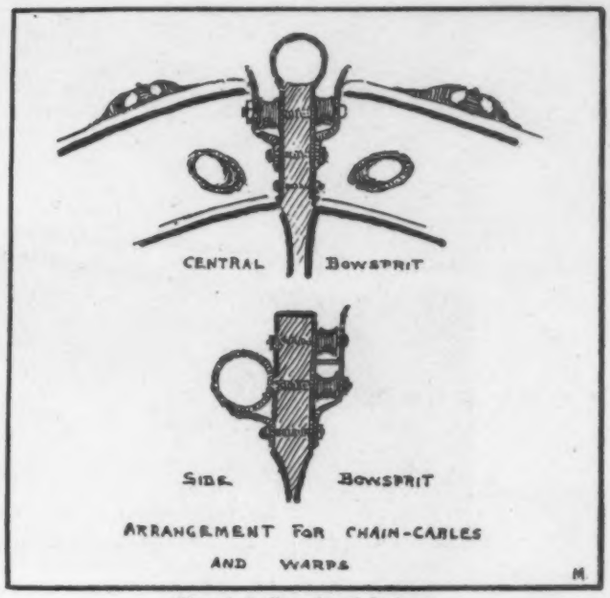
is spliced into each end (Sketch 8). These wires are of value for use with a kedge, for anchoring in deep water such as is found on the West Coast of Scotland and in Norway, and for securing to buoys. They are very strong, light, pleasant to handle, not apt to kink or rust, easy to clean when muddy, easy to dry, and cheap. They can be obtained ready for use from the Gourock Ropework Co., which has branches in most ports where there are trawling smacks. For securing to buoys which have very large rings, it is worth while getting a few shackles with very wide jaws so that the wire is not chafed or damaged by being passed through the ring.

Heavy buoys are most uncomfortable to ride to except in perfectly smooth water. A spring made of grass rope is at times invaluable. For yachts between 30 and 50 tons in displacement, a length of 42 fathoms of two-inch grass rope may be plaited sixfold or laid up to make a spring. One end is shackled to the buoy and the other secured to the bitts. The cable is allowed to hang in a bight so that it is ready in case of emergency, but all the strain is taken by the grass. Grass laid up in this way is extraordinarily elastic and absolutely prevents any snubbing.

Next in importance to good ground tackle are the arrangements for working it. Chain lockers may be considered first. It is the custom of yacht designers and builders to place the chain lockers far forward, with the result that a very heavy weight is concentrated in the bow of the ship, where it is least wanted. In yachts with more than one mast it may be impossible to keep the chain locker out of the extreme bow, but in cutters and sloops, when the mast is a third or two-fifths of their length aft from the stem, it is possible, with some contriving, to stow the chain close to the mast step. If the construction of the yacht is such that it is difficult to find a good place for shackling the inboard end of the cables to the structure of the hull, they may be passed around the heel of the mast and shackled there. The shackles used for securing the inboard ends of cables must be as strong as the joining shackles, for if the cable should run out to a clinch it will bring up with a fearful jerk. For this reason it must be arranged, if possible, that there is a fair lead for the cable from the place where its end is secured to the chain pipe in the deck; otherwise, woodwork will be ripped to pieces should the cable take charge.



Sketch 6. Various types of cables.



Sketch 9. Stemhead fittings.

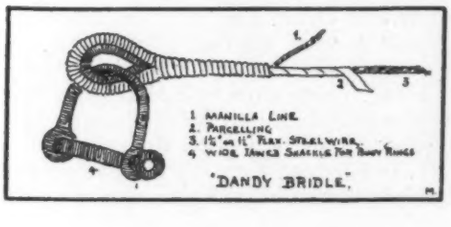
An excellent form of chain locker is found in Norwegian pilot boats. The chain pipes are close beside the mast in the deck and the locker is vertical from the underside of the deck to the keelson. Three sides are generally permanent, while the fourth is made of transverse boards which can be unshipped. By this means, although the weight of the cable is not kept as low as in other forms of lockers, it is well aft and the chain is self-stowing.

It is a common thing to see on deck first-class winches and gear for handling the ground tackle, so that the cables can be veered and checked by means of a gipsy wheel and a band-brake upon a drum attached to it, and then to find that little advantage is gained because the chain will neither run out freely nor stow itself in the locker.

Stem head fittings are most important and make all the difference between light and heavy work, even when the most efficient windlass or capstan is fitted. The arrangement shown (Sketch 9) is good; a fairlead is provided on either bow for warping; rollers for both cables; and hawse pipes for use in securing to buoys and at the same time having both anchors and cables ready for use. In vessels having the bowsprit at one side of the stem, the rollers may be placed one above the other, having only the upper one open. It is most important that the guards at the side of the rollers should be deep enough to prevent any chance of the cable jumping off the roller, and that the rollers themselves should be of large diameter and revolve freely. When the cable comes short the difference between heaving in over a good roller and through a hawse pipe is really astonishing.

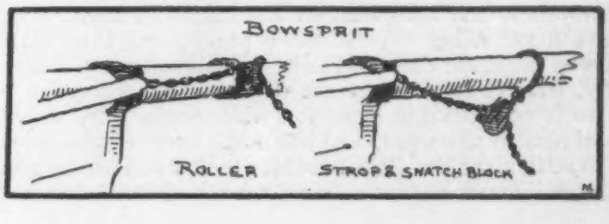
Windlasses and capstans are to be had in many patterns. The windlass is probably the more satisfactory as

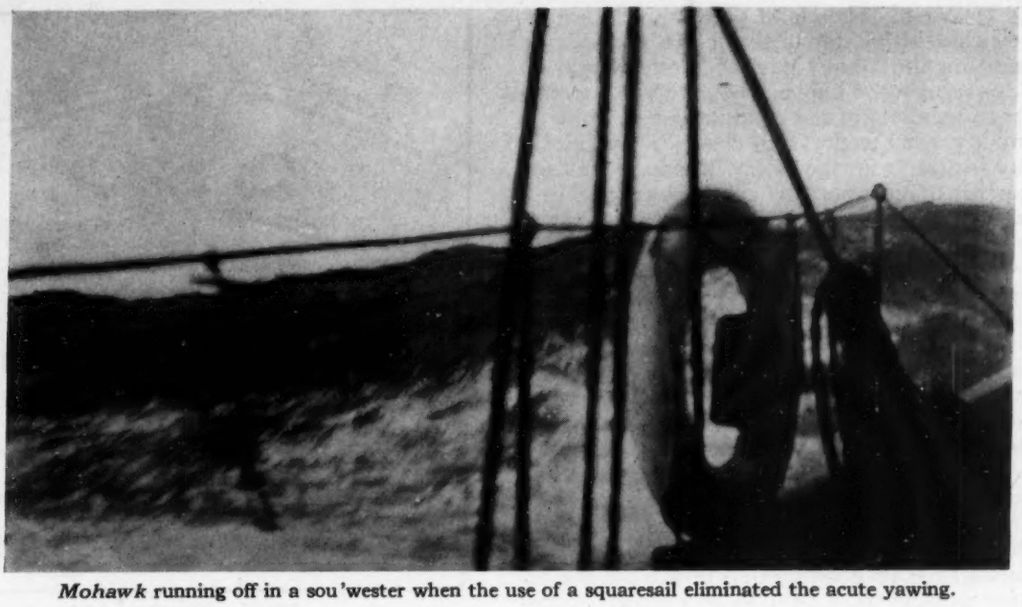
(*Continued on page 110*)



Sketch 8.
A "dandy bridle."

Sketch 12.
Bowsprit roller.





Mohawk running off in a sou'wester when the use of a squaresail eliminated the acute yawing.

More About That Squaresail

A Member of the "Mohawk's" Crew Takes Issue With "Alf" Loomis, and Describes Its Value in the Transatlantic Race

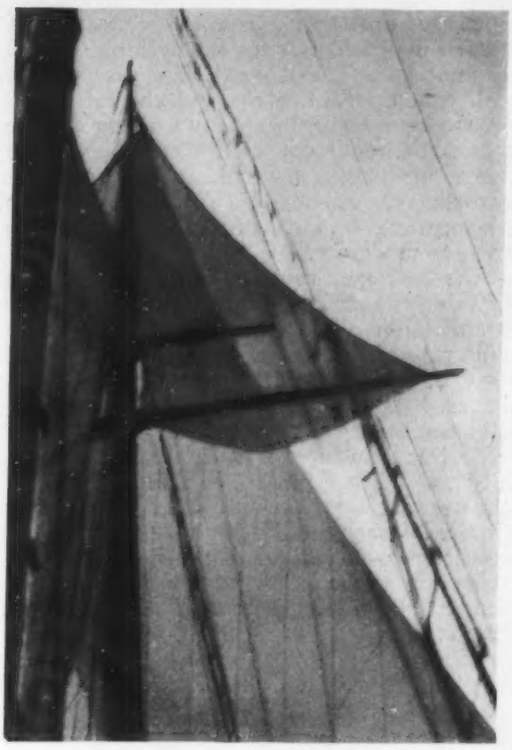
By JACK PARKINSON, JR.

I WAS extremely interested in reading Mr. Loomis' article in regard to the use of the squaresail on board the *Pinta* during the Spanish race. From the nature of Mr. Loomis' article, I gather that he expected his theories to be criticized. But this article is in no way an attack. It is merely a statement of the rather more favorable experience we on board the *Mohawk* had with our squaresail, and a possible reason for this.

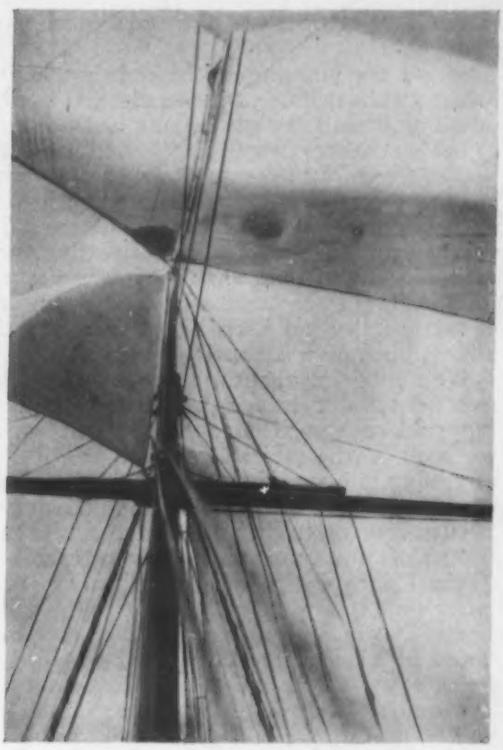
I shall begin by agreeing with Mr. Loomis that for ocean racing a squaresail is primarily a hard weather sail. In moderate to fresh breezes a spinnaker is undoubtedly far better and should be carried as long as it is possible to keep the boom from dipping frequently. As Loomis says, the *Mohawk* ran before the wind for a number of days and carried her squaresail for only a small number of hours. The reason for this is obvious. The Spanish race was a light weather race almost from start to finish and clouds of kites were at all times necessary. Only once did we experience weather suited to a squaresail, in the S. W. breeze on July 8th and 9th, when we carried ours (to our advantage, I think) for a period of something over 36 hours.

The *Mohawk's* squaresail was not the child of combined previous experience. In a conference last winter "Dud" Wolfe brought up the subject. "Ducky" Endt and I both looked blank. Nick Biddle remarked that they had used one of a rather makeshift character on board the *Primrose* in the 1926 Fastnet Race because they did not have a spinnaker. There was a pause, and then we all agreed listlessly that we might as well take one. Personally, I never expected to see the thing set. However, we gave it considerable attention while fitting out and the final result was a squaresail like one I had seen aboard the *Tally-Ho* after the 1927 Fastnet Race, modified by some suggestions of our paid hand who had been to sea in barkentines, and those of a Norwegian rigger at City Island. I shall say right here that it involved a lot of gear. For any race of less than a thousand miles I should say that our squaresail was distinctly *de trop*. It took too much "getting to know." But even this year's light weather Spanish race convinced me that there is a place for one in a long race, and that under different conditions it might be carried for days on end.

Our yard was longer than the *Pinta's*, about 28 feet to 22 or 23 feet for that yacht. It was also considerably heavier. I know, because I looked them both over at City Island before the race. In fact, our spar was as long as our spinnaker boom and heavier. There were bronze fittings at either end with three attached rings in which we fitted snatch blocks. To these we ran lifts, braces and outhauls for the sail. The lifts were light wire rope with hemp on the hauling ends which led to blocks at the masthead and down to a pinrail in the rigging on either side. The braces consisted of a wire pennant ten feet long at each yardarm, with a block at the end, through which we ran a hemp hauling part, trimming aft on the quarter. In the center of the yard was another bronze fitting into which we hooked a double-purchase special halliard which was used for hoisting the yard, the lifts being used primarily to balance the yard and keep it rigid when in place. In this center fitting there was also a screweye into which we screwed the parral for the yard which ran on a wire jackstay. The jackstay was attached around the masthead with a strop and was held out from the mast by an oak block under the strop. The stay was taken up by a turnbuckle in the deck at the foot of the mast. In the oak block at the masthead was a slot into which the parral of the yard fitted. Being thus held rigid, all chafe on the jackstay by the parral, caused by the jerking in a seaway, was eliminated. This is a good dodge which I have not seen before. In England they say this place is the great source of trouble in square-rigged gear, due to chafe.



The raffee set above the spinnaker in favorable conditions filled a lot of area not reached by the spinnaker and pulled all the time.



Looking aloft at the raffee of *Mohawk* doing fine work. The light sails shown are raffee, spinnaker, balloon jib.

Finally, on this center fitting of the yard were blocks for the inhauls of the sail, enabling it to be brailed in a longitudinal bunch. The sail was hauled out on hooks to which it snapped. All our fittings were of bronze, a preventive for the "rusting gadgets" of which Loomis speaks.

From this description it is evident that our gear tended to be somewhat complicated and that its use required a certain amount of familiarity with its intricacies. This would be impossible with a pick-up crew in a short race, rendering its use impractical. However, this is not all. A week before the race "Ducky" Endt was inspired with the idea of raffees and we forthwith had Ratsey make us two beauties, later christened "Isabel" and "Josephine." This idea entailed more gear to the extent of another halliard to the foretopmast head.

The squaresail itself was made of moderately heavy stuff, by Cousens & Pratt. The squaresail proper had a drop of only about ten feet, intended, I suppose, for scudding before a gale. However, laced to the foot was a bonnet of the same weight canvas, increasing the drop of the sail by another 15 feet and bringing it within about six feet of the deck. "Ducky" Endt always bemoaned the fact that it did not reach the deck, but it was pretty good size, anyway.

So much for a description of the sail. We set it up one calm morning while at anchor at City Island, with a gang of riggers to help us. It took us about two hours. I had visions of handling it in a gale of wind in the middle of the North Atlantic, but said nothing. Everybody else, I imagine, had the same thought. We put the squaresail at the bottom of the sail locker and lashed the yard out of the way as much as possible. I did not expect to see it moved until we reached Spain.

The next time we thought of the square gear was under unexpected circumstances. It was about four days after the start, in the light westerly weather we experienced for the first week. We were fanning along under spinnaker, balloon jib, balloon staysail, alternating the calm trysail with the mainsail and topsail.

We had sighted the *Rofa* that morning and were racking our brains for ways of getting more speed out of the old packet. Somebody suggested setting the raffee above the spinnaker. Out came the yard and up it went. I am glad it was calm because there was ample confusion. I can imagine what it was like setting it up aboard the *Pinta* on the morning of the eighth in the westerly breeze. When we sent ours up we had favorable conditions and it did not take long to haul out a raffee on the squaresail outhaul. Commodore Martin, of the *Jolie Brise*, praises the raffee and we agree with him. It filled up a lot of area the spinnaker did not reach, it pulled all the time even when the spinnaker was starting to come aback, and it was easy to handle once we had the yard up. The raffee is my first argument for carrying a squaresail and yard on a long race, because you can use the raffee above the spinnaker. I think it helped our speed materially in light chances with the wind aloft. At any rate, we left the yard up and it never came down until we struck the easterly

A Spanish coasting schooner drying her squaresail.

in the Bay of Biscay. That's how much trouble we had from chafe.

So, on the morning of the eighth, when the westerly breeze struck in, our yard was aloft. It had been breezing up all night and the whole gang had been up most of it, as the spinnaker outhaul had parted and the whole business had gone out over the bows, the sail getting partially in the water. After this was cleared up it was time to get in the balloon staysail and set the foresail. The wind was nearly dead aft and the boat was steering very hard as the mainsail was all that was drawing and it was too rough for a spinnaker, as Loomis says. As dawn broke a couple of extra heavy puffs struck out of a rain cloud and she almost jibed on a succession of big seas.

We were doing about nine knots and we did not like to slow her up. But she was steering so badly that we decided it would be a good chance to set the squaresail. First, we took in the mainsail altogether with the intention of reefing it later, after setting the squaresail. Then we got out the squaresail, longitudinally clewed up, and hoisted it up on to the yard on the jumbo halliard. Biddle went aloft and snapped the sail onto the hoops and outhauls. This was a good job as the boat was rolling severely. After that it was easy to haul out the sail and sheet it home. It was really surprising to see how the schooner acted with this sail set. We hardly needed a man at the helm. It was blowing harder all the time, so our speed was the same as it had been with the mainsail. We set the trysail instead of the reefed mainsail and would drop it in the heavier puffs. Aside from a very heavy roll everything was perfectly comfortable and there was little water on deck.

The acute yawing caused by the mainsail was entirely eliminated. The sail itself stayed full all the time and the foresail did not seem to bother it at all. Perhaps this is because the reefed mainsail was not set. I think we had her doing her best speed throughout. We carried this combination all that day and night and the next day. The breeze dropped suddenly the second evening and we got the kites back on her. I do not think the squaresail caused us to lose much time. By leaving the yard up it was very easy to drop the sail on deck. For this very reason I do not think we would be inclined to leave it set when the wind started to moderate.

I compared the *Mohawk's* run for the 8th of July with that of the *Pinta* on the chart published in a recent issue of YACHTING and found them to be about the same. I have not the figures at hand but I do not think the *Pinta* outsailed us much, if any, on that day. We were close together and must have experienced much the same conditions. We did not have a chance to use our squaresail again in the race, but I am sure we would have done so if the opportunity had arisen. After all, I think the sail was justified by the use we did give it. In 1927, I sailed across the Atlantic in the *Nicanor* and did not have a single good chance to use the spinnaker. This summer we used one continually. One can never tell what conditions will be like and I cannot believe that carrying a squaresail is a step away from efficiency in a long race, as Mr. Loomis does.

In closing, I should like to add that I talked with Lord Stalbridge, winner of the 1927 Fastnet Race, in regard to the use of a squaresail. In that great race between his cutter *Tally-Ho* and the schooner *La Goleta*, across the Irish Sea, in a westerly gale, he carried a squaresail and praised it highly. I afterwards saw this squaresail in use, and although it was very simply rigged, without braces or lifts, it was very effective in a breeze.

Cruising Memories

I like to drift in memory
Upon a flooding tide,
Back to a cosy harbor
Where I see my dream-ship ride;
And there to go aboard again,
With all my cares ashore,
As I slip her from the mooring
And head out to sea once more.

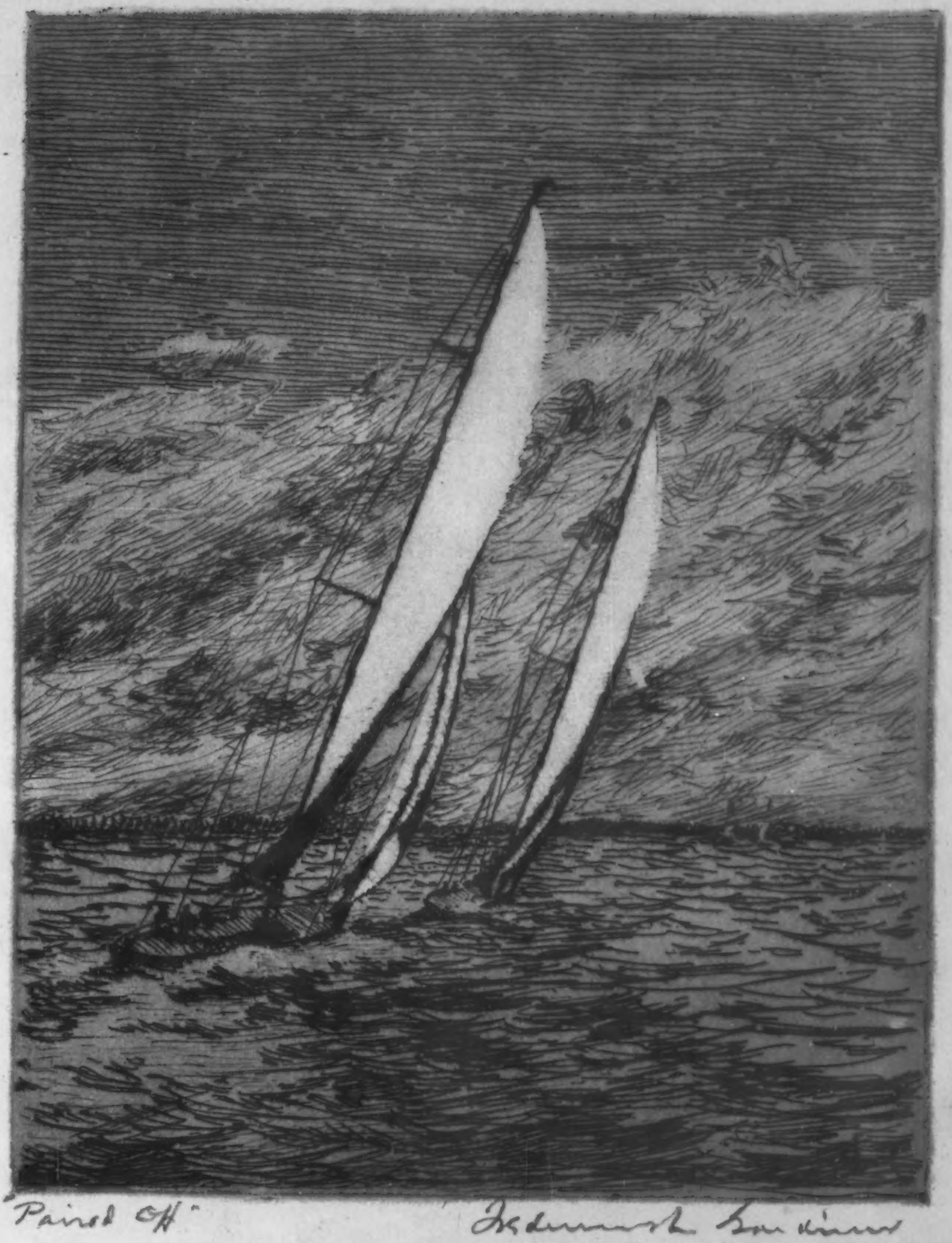
I see a summer dawning,
With the east all rosy bright;
And the sparkle on the water
Is like jewels all alight;
The sea gulls scream a greeting
While they swoop and hover nigh,
And the canvas whips and crackles
As I peak the mainsail high.

The good salt breeze is singing
The old tune I love so well,
And the bow-wave starts to murmur
As she breasts the ocean swell;
There's a schooner marching southward
On the long horizon line —
Oh, it seems once more like living
When I taste the salty brine.

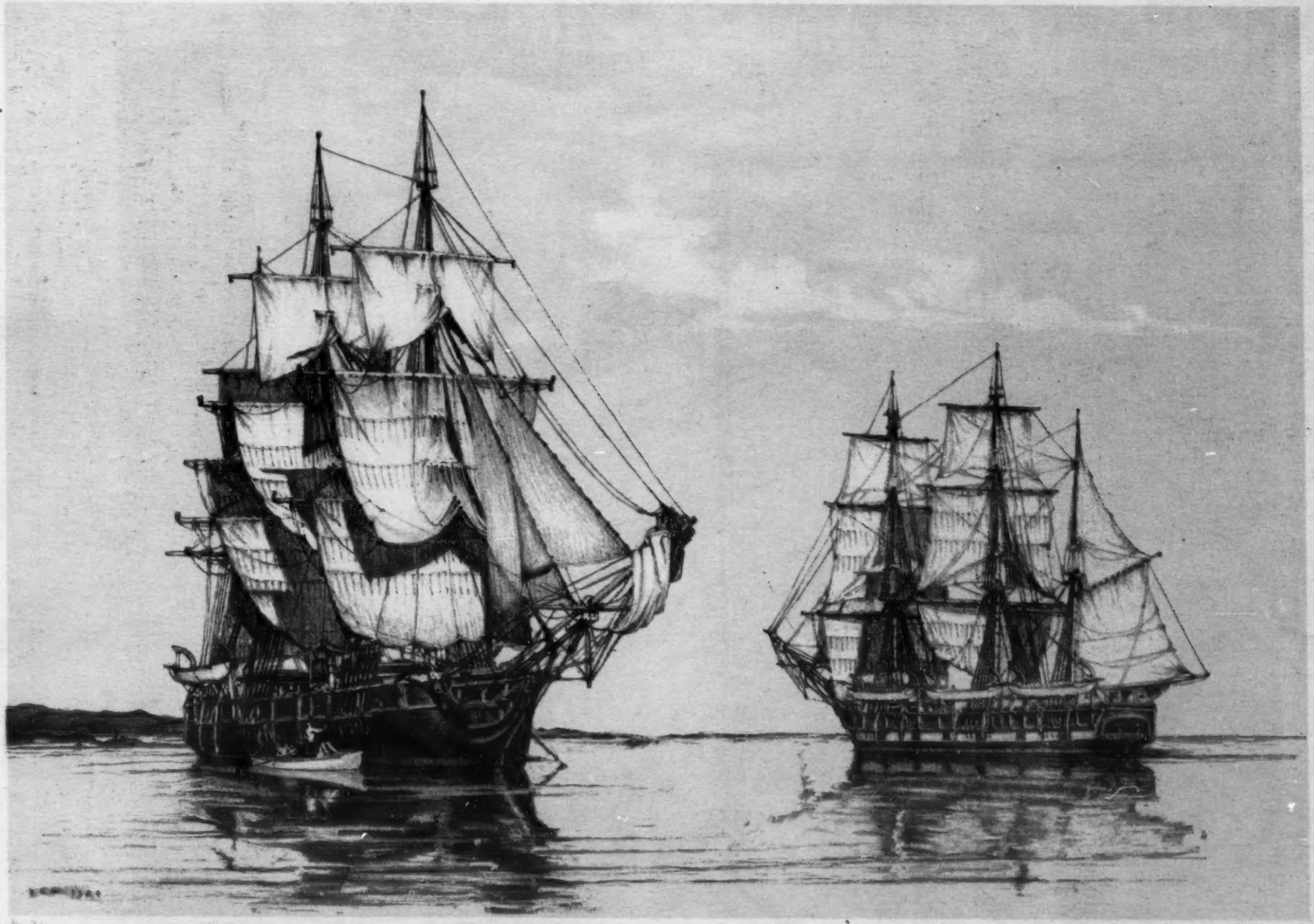
The fore-deck is half buried
In a smother of white foam,
And she's reeling swiftly onward
Like a wild bird winging home;
The masts are bending to the breeze,
And sheets are humming taut
As she smashes on to windward
Toward a hazy, distant port.

A light is flashing welcome
From the long breakwater wall,
And the breeze is blowing softly
As the evening shadows fall, —
Now she ghosts into the harbor
And the cable rattles out
As the sun is dipping westward
And the shore lights shine about.

ALFRED STUART MYERS.



PAIRED OFF!
From an etching of racing yachts by Frederic M. Gardiner.



NEW BEDFORD WHALERS *ROUSSEAU* AND *LAGODA*, 1861.

From a series of lithographs of American ships by George C. Wales.

The *Lagoda* is mentioned in R. H. Dana's "Two Years Before the Mast," when she was hide droghing on the West Coast.

(Courtesy Charles E. Goodspeed & Co., Boston)

The Sea-Lyon fast commuter, capable of a sustained speed of 60 m.p.h. Several will be seen in New York waters next summer, one, for W. K. Vanderbilt, capable of making the run from Northport to the New York Yacht Club station in 40 minutes. She is a two-step hydroplane, 35 feet long and 9 feet wide, and is driven by two Liberty motors.

The Month in Yachting

Second Annual Albany-New York Outboard Marathon

THE second annual Albany to New York Outboard Motor Time Trials, run last year on April 14th, 15th, 21st and 22nd with a total entry list of nearly 100 drivers, will be held this year on two days only, April 13th and 20th, according to a recent announcement. The race this spring will again see up for competition two attractive cash awards, donated by Haynes-Griffin, Inc., as well as a number of special prizes for the various classes of motors, and will be run under the auspices of the New York Outboard Motor Boat Association.

As was the case last year, the grand prize of $500 put up by the Haynes-Griffin Company will be awarded to the driver making the run from Albany in the shortest time in the two days. The second cash award of $100 will go to the driver first completing the run from Albany to New York on the first day. The major award last year was carried off by Earl D. Widegren, of Locust Valley, N. Y., after a sensational trip down the river in 4: 27: 30 on the final day of the event.

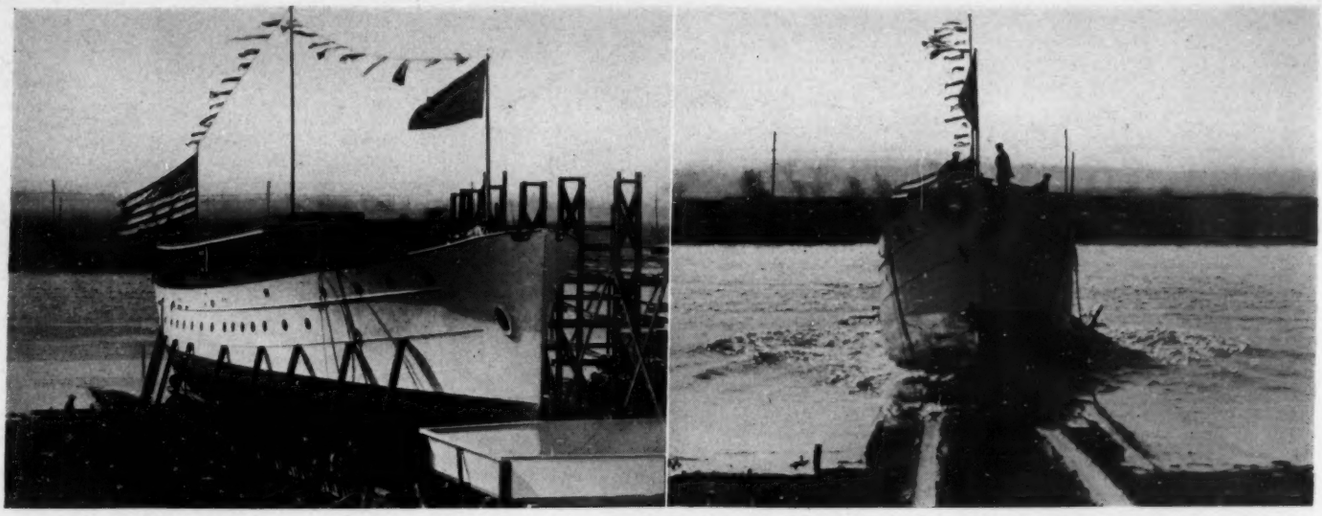
The rules governing this year's time trials are essentially the same as those which prevailed for the running of last year's successful event, the first long distance affair in the history of outboarding. Motors in B, C and D and unlimited classes will be eligible. In addition to cash awards for best time and first to complete the run, prizes will be offered in the various motor classes.

The starting point will again be the Albany Yacht Club, with the finish named for the Colonial Yacht Club, at 152nd Street.

Miss England to Try to Better *Miss America's* Record on Biscayne Bay

ONE of the features of the power boat regatta on Biscayne Bay, off Miami, to be held March 20th and 21st, will be the appearance of a new British speed boat, *Miss England*, owned and

Major H. O. D. Segrave and his new speed boat *Miss England*, in which he hopes to better *Miss America VII's* record at Miami, March 20th and 21st.



Launching of the new 126-foot Diesel yacht *Acania* from the yard of her builders, Pusey & Jones Corp., Wilmington, Del. Owned by Arthur E. Wheeler, of New York, *Acania* was designed by John H. Wells. She is built of steel and is powered with two 250 h.p. Winton Diesel motors.

driven by Major H. O. D. Segrave, the English sportsman who is now in the United States attempting to break the automobile speed record. Not content with trying for the speed laurels on land, Major Segrave has brought with him the latest and what is said to be the fastest speed boat built in Great Britain. This is *Miss England*, and her owner is out after Gar Wood's record of 92.838 miles per hour, made with *Miss America VII* at Detroit last September. If he succeeds in doing this, Major Segrave promises to have *Miss England* at the Detroit Regatta next September for the Harmsworth Cup races.

Miss England embodies many original ideas of her owner. She is 27 feet, 6 inches long by 7 feet, 6 inches wide, the planking being of 5-ply mahogany with frames every 3 inches throughout her length. In spite of this the hull is very light, weighing but 640 pounds without the engine. The steering cockpit is forward of instead of abaft the engine, while the motor is installed well aft. The engine is a 12-cylinder 1,000 h.p. Napier Lion, driving a single 3-bladed propeller at a maximum speed of 6,500 r.p.m.

Major Segrave has been reticent as to the speed which he hopes to attain, but if he beats *Miss America VII*, *Miss England* will have to go close to 100 miles an hour, which hardly seems likely with a single screw boat. Whatever the outcome of the race at Miami, *Miss England's* performance will be watched with great interest.

Yacht Racing Increasingly Popular in Jersey

THE character of yacht racing in New Jersey has been undergoing a radical change in the last few years, reflected both in the type of boats used and the amount of racing done.

With the announcement from the Barnegat Bay Yacht Racing Association that once again this body will accept the challenge of the Royal St. Lawrence Yacht Club of Montreal for a series of scow sloop races, comes another of equal importance. In the Barnegat Bay Star Fleet, the 36th of the International Association, Jersey waters will see keel boats racing for the first time. Neither of these statements could have been made five years ago, and this is typical of the change on waters which have seen small boat racing for some 60 years.

Catboats, sneakboxes, and more catboats were the order of the day for many decades in Jersey. Sloop racing never prospered, although it gradually began to get a foothold after the war. The catboats and sneakboxes began to develop into freak rigs, and as their speed and refinement improved the cost rose, their predecessors became obsolete and racing them began to be a severe strain. The sneakbox class of some twenty craft dwindled to three last summer, and the year before no boat sailed in enough events to qualify for the championship.

The old gaff-rigged catboats underwent changes also, the Marconi rig came in, the sail area went to 580 square feet on a 27-foot hull with a 52-foot mast and no draft at all. With these changes Barnegat developed a type of centerboard racing catboat which probably is the fastest single-sail craft in this country. But the cost grew proportionately with the refinement, and the racing of these boats became a real strain on skipper and crew. Although the class still hangs on, with four boats racing, general interest has reached a low ebb.

Up to the time of the introduction of the Class E scow sloops, with their double bilgeboards and rudders, just four years ago, the two classes discussed above were in their prime. In that space of time conditions have changed to the extent that sloops now threaten the extinction of the types which saw their development on Jersey waters. The Inland Lake scows were laughed at at first, then they were acknowledged to be the fast, cheap, and sporty craft which they are. Then followed a challenge from Canada for an international series. This has done more for the sport on the Bay than anything in the past 20 years, for when Barnegat triumphed over the Royal St. Lawrence Yacht Club in 1926, over the veterans of the early days of Seawanhaka Cup history, scow racing received a splendid impetus. Nor have the defeats in 1927 and 1928 deterred the Jersey skippers from coming back for more.

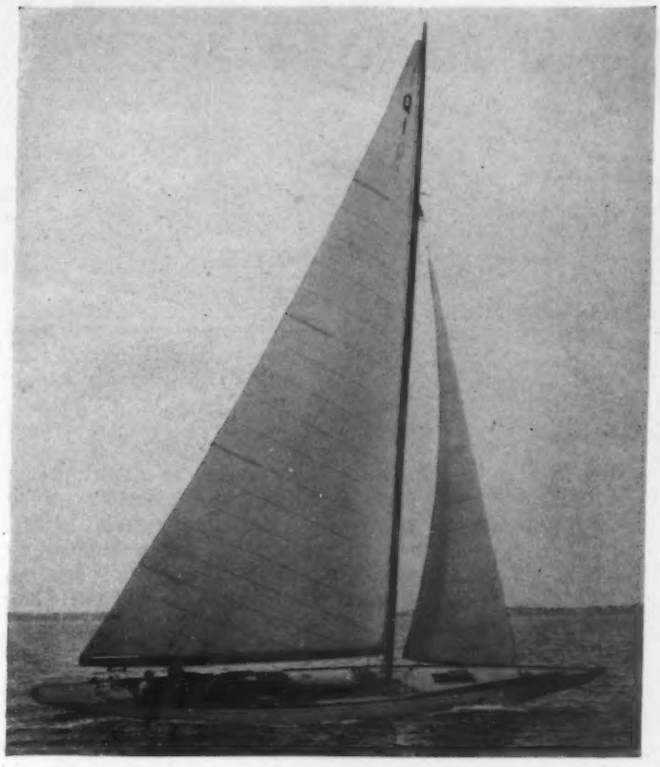
In the past years selections were at first made arbitrarily by the Regatta Committee, and the elimination method was tried last summer. This did not prove a great success for only five of the fifteen available scows took part. Just how much of an improvement the selection system in use this summer will be remains to be seen.

The series for 1929 will again be of eight races, four to be held on Lake St. Louis, near Montreal, in July, and a like number on the Association's course on Barnegat, off Seaside Park, late in August.

While the downfall of the catboats and sneakboxes may be attributed to the bilgeboard scows, a further confirmation of the change in attitude and tradition may be seen in the formation of the Barnegat Bay Fleet of the International Star Class. John Trumpy, Robert D. Taylor, Clifford M. Grover, Vice-Commodore of the Seaside Park Y. C., and C. E. Lucke, Jr., were the charter members of this new fleet. Boats are now building at Parkman's, in Brooklyn, and delivery in May will introduce keel racing to Jersey.

The courses off Seaside Park, Island Heights and the lower Bay furnish plenty of water for the modern racing catboats with their five-and-a-half foot centerboards, so little difficulty is expected on account of draft, as the Stars draw but 3′ 4″. The experiment will be watched with close attention, and should the class go over as numerous observers expect, it will have a still more leavening effect on yacht racing on the bay. For the Stars provide what Barnegat has lacked for many decades, a type of boat which will enable it to break down its isolation from the rest of the yachting world by widespread inter-fleet competition.

Present indications point to not over eight boats in the class but it is possible that the low cost of the Stars will induce various doubters to come in at the last moment. It has been definitely decided to start things right by sending a boat to New Orleans for the International Championships and another to Gibson Island for the Lipton series.



Tartar, one of last season's 25-raters at Marblehead, designed by Alden. The Q Class will be strong on Massachusetts Bay this season.

The "Q" Class at Marblehead

IT looks as if the 25-raters, Class Q, will hold the center of the stage at Marblehead the coming season, displacing in interest the 20-raters, which have been "going strong" north of the Cape during the past eight or ten years. The 25-raters as a class will also be seen on the Sound next summer, with at least three yachts racing regularly.

At Marblehead all the older 25-raters will be raced with the exception of the *Scapa* and *Hawk*, which have been sold to New York waters, where the *Grayling* is also owned. The owners of these three boats have formed a Class Q Association to work with the Boston Association, which has special rules in addition to the regular rules of the class. In Massachusetts waters the haul-outs are restricted, boats are required to have watertight cockpits, with berths for four aft and one forward, and various other restrictions, in addition to a limitation on the overlap of any light sail to not more than two-and-one-half feet by the mast, thereby barring the so-called Genoa jib.

Last season there were thirteen boats actively racing at Marblehead in this class. At the present time three more are under construction. One of these is being built by Hodgdon Brothers for John G. Alden. While Mr. Alden is designing this yacht with the idea of obtaining a limit Q boat, she is being built under the new Lloyd's scantling rules, making her eligible for squadron runs of the New York Yacht Club, as well as racing in her own class. The new boat will have comfortable accommodations for four, six feet headroom, and a commodious galley.

Another of the new boats is from designs by L. Francis Herreshoff for C. H. W. Foster. Unlike Mr. Herreshoff's recent boats, she has the customary transom stern, and the general design shows an extremely good-looking model of wholesome proportions. The general appearance resembles C. H. W. Foster's fast heavy weather R boat *Mary*.

The third "Q" has been designed by Frank Paine for Mr. Harold Wheelock, of Marblehead. All three of these boats will have a waterline beam of over eight feet, as agreed upon by the Marblehead Class Q Association.

With Charles Francis Adams again racing in the class, there will thus be fourteen first-class Q boats in the racing at Marblehead next summer. Mr. Alden has also announced that he will take his "Q" to Larchmont for at least part of Race Week.

Midwinter Regatta to Feature East-West Races

THE King of Spain's Cup, a beautiful silver replica of Columbus' *Santa Maria*, given to California yachtsmen last summer by King Alphonso for international midwinter sailing competition, will be the *pièce de resistance* of the Third National Midwinter Regatta, to be held at Los Angeles from March 9th to 14th. The East-West race week this year will inaugurate the Eight-Metre Class in Pacific yachting, the King of Spain's Cup going to the winning "Eight."

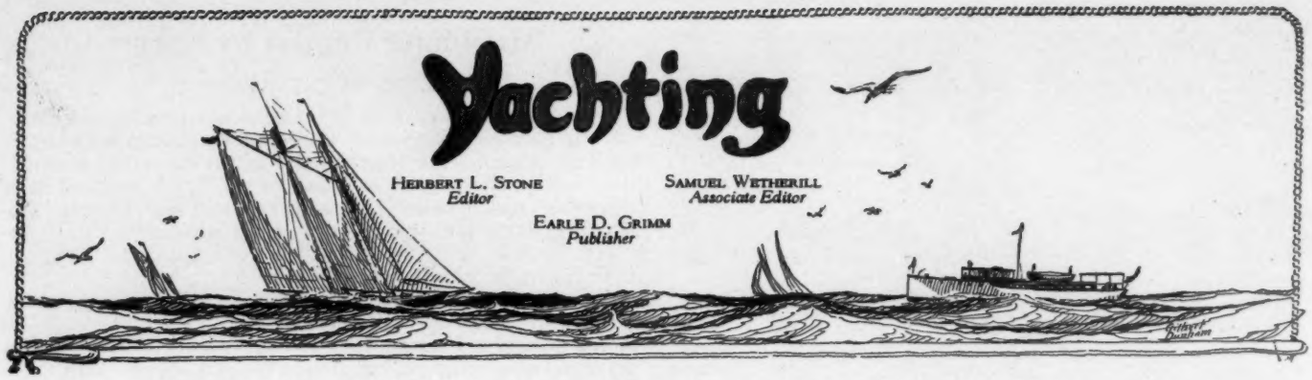
Representing the East in the Eight-Metre Class will be *Marin*, a new boat designed by Nicholas S. Potter for Past Commodore Ralph Ellis, of the Seawanhaka Corinthian Yacht Club, of Oyster Bay, and now nearing completion at the yards of the Wilmington (Calif.) Boat Works. She will be a boat of pleasing lines, reminiscent of Owen Churchill's Pacific champion Class R *Friendship*, also from the board of Mr. Potter. *Marin* will be distinguished from most of the existing "Eights" by her comparatively low freeboard and long overhangs. She will have an over all length of 48 feet, 8 inches; a beam of 8 feet, 2 inches; a draft of 6 feet, 4 inches; and a 30-foot water line. She will hoist 860 square feet of working canvas and carry 10,500 pounds of outside ballast.

West Coast competition for Commodore Ellis's new sloop will include *Babe*, the German-built, Burgess-designed "Eight" which Owen Churchill, of Los Angeles, entered as the American representative in last year's Olympiad at Amsterdam, and *Monidah*, a French boat which Stuart Haldorn, of Burlingame, brought from Europe last season. Both *Monidah* and *Babe* have shown speed in light going.

The only other Eastern entry scheduled to participate in the March regatta is Charles D. Wiman's new Mower-designed 20-rater *Alert IV*, which arrived at San Pedro from Boston on January 24th. She will be sailed by Mr. Wiman under the burgee of the Corinthian Yacht Club, of Marblehead, and will defend for that club the Don Lee Trophy, captured at Los Angeles last March by Vice Commodore Charles A. Welch, of Marblehead, in winning the national Class R championship with his *Live Yankee*. Coast hopes for return of the Lee Cup and Class R honors rest

(*Continued on page 128*)

Racing on San Francisco Bay in a 16-foot Luders Red Wing, owned by Hart Weaver of the St. Francis Yacht Club. One of these boats was exhibited at the recent Motor Boat Show in New York.



Editorial

The Passing of Sail on the Sea

MOST of us, perhaps, have been aware of the fact that the sailing ship has for years been disappearing from the trade routes of the world. The ultimate end of sail as a force in the world's commerce was evident to all who read the signs of the times; but to many it seemed that the evolution was still in process and the curtain not yet rung down on the era of canvas and hemp. But just recently a letter reached us from Victor Slocum, son of the redoubtable Joshua Slocum, of the *Spray*, who has just completed a voyage around the world as an officer on a motor ship, the *Tampa*. From New York to Panama, to Australia, to Singapore, across the Indian Ocean, through the Red and the Mediterranean Seas, and home across the Western Ocean. And this is what he writes — listen and prepare to weep: "Throughout the entire voyage of nearly 30,000 miles, during which we were under way 110 days, *not a single sail was sighted on the high seas.*" It looks from this as if the end were already here. Except for some coastwise trade, mostly European, and a few routes on which occasional sailing vessels still find employment, the sailing ship and the "sailor of the sail" is a thing of the past.

From now on the yachtsman must carry on the tradition and the spirit of that

"— breed of the oaken heart,
Who drew the world together and spread our race apart."

An Interesting Experiment in Rating

That was an interesting experiment in measuring and rating yachts of a mixed fleet and varying size which was tried out by the Royal Canadian Yacht Club last summer, and described elsewhere in this issue by C. H. J. Snider. The same problem in a more or less acute form confronts many yacht clubs, where the older boats of a class have no chance against the larger and newer craft in the same class. Many racing yachts thus become prematurely obsolete. The results of one season's trial may not be conclusive. The idea may not prove a panacea for all the difficulties of mixed class racing, nor does it demonstrate that one rule is better than the other. But it does provide a way of measuring boats built under a rule where they all *rate* alike, irrespective of size, and produces a rating that is commensurate with the comparative sizes of the yachts measured. In this respect the experiment is worthy of further trial.

Plans Under Way for a Revival of International Racing for the Canada's Cup

The yachting world generally will receive with gratification the news that the initial steps have been taken to patch up the long-standing differences between the Rochester and the Royal Canadian Yacht Clubs that have for so many years blocked the way to a resumption of racing for the Canada's Cup, most prized of fresh water international trophies. Since the last match of 1907, which resulted in a serious breach between the two leading organizations on either side of Lake Ontario, the Canadian sailors have refrained from challenging for the cup they prize so highly. But this winter the Royal Canadian Yacht Club intimated that it would send a challenge for a race in 1929 if the Rochester sailors would meet it in the Ten-Metre Class. It seemed to the Canadians a good opportunity to get the "Tens" started on fresh water.

The Rochester yachtsmen had no "Tens," and the difficulty of financing one or two yachts of this class on short notice seemed too great to be overcome. As the holding club has the right to name the class in which the race shall be sailed, the Rochester Yacht Club suggested that if the Canadians were willing to postpone the event until 1930, and race in Eight-Metre yachts instead of Ten-Metre, they would be disposed to accommodate them. And there the matter rests.

As a matter of fact, we believe the "Eights" would be a more suitable class to establish on Lake Ontario than the "Tens." They cost less, more could be built, and they offer good cruising accommodations for their size, which weighs with the lake sailors. In any event, the attempt to reëstablish racing for the Canada's Cup is a step in the right direction, and it is the hope of yachtsmen of both the United States and Canada that the present negotiations will result in the famous cup being dusted off and placed in competition once more. It will do more for the sport to have it change hands occasionally than to remain permanently in the locker of one club.

The Model Yacht

With the great growth of interest in the designing, building and sailing of miniature boats, it has seemed to us evident that the art and the sport needed more space than could be devoted to it in the pages of YACHTING. Since the formation of the Model Yacht Racing Association of America the classification and racing of models has been organized on a comprehensive basis, and the international and intersectional matches that have been sailed have done much to heighten interest. From coast to coast, from Canada to Mexico, model yacht clubs have been formed and the building of models stimulated. In order to meet the growing demand for information on all phases of model yachting, and to spread the news of the sport, we have taken over the publication of THE MODEL YACHT, a magazine devoted to the interests of model yachtsmen everywhere. This magazine will take the place of the pages devoted to the sport in YACHTING. THE MODEL YACHT will be published monthly, and it will, we hope, fill a need that those who have at heart the interest of yachting generally have long felt.

In the World of Yachting

EDWARD P. ALKER

EDWARD P. ALKER, or "Ted" as he is known on Long Island Sound where he has done much of his racing, has been sailing boats for some thirty years, starting as a youngster, as is true of most good sailors. He comes of a well-known yachting family, his father, A. H. Alker, being prominent in racing circles of the nineties, and his three brothers, James W., Henry A., and Carroll B. Alker, all being the owners of racing yachts.

"Ted" first came into prominence as a helmsman in 1899, if our memory serves, in the catboat "Florence," owned by his father. She was a fast boat, built as a sandbagger, and won many races in her day. Later he and his brothers sailed the Herreshoff-designed "Alerion" in a hot racing class, and the "Alert," a centerboarder, then owned by J. W. Alker, and a remarkably successful craft, which is still afloat. When the New York "Thirties" were in their prime, 1907–8–9, he sailed the "Alera," owned by A. H. and J. W. Alker.

In yachts of larger size, he sailed the New York "Fifty" "Istalena," with Carroll Alker one season, and he now owns the 80-foot auxiliary schooner "Boreas." When the Scandinavians sailed here with four "Sixes" in 1925, "Ted" Alker was at the stick of Henry Plant's Six-Metre "Natka" in that series. That same year he and Donald Cowl sailed the latter's 20-rater "Ardette" throughout the season, finishing second in the championship standing. This last season, sailing Donald Cowl's Inter-club "Ermar," he won the Larchmont Race Week series.

Alker is vice-commodore of the Manhasset Bay Yacht Club, of which organization he has long been a member. His other yacht clubs are the New York, Larchmont and Indian Harbor. He also owns the power cruiser "Cirrus," which he uses extensively on the coast. All in all, rather a wide experience, we'll say.

The Why and Wherefore of Spark Plugs

The Maximum Efficiency of an Engine, Particularly a High Speed Outboard, Depends Largely on the Use of the Correct Type of Plug for a Particular Service

By HECTOR RABEZZANA

ENGINES for marine work differ so much in their characteristics, due to the wide range of service for which they are designed, that the necessity for using the right spark plug in each case is far more vital than in any other field, automotive included.

There are engines with a very large bore and low compression and low speed; automobile type of engines of high compression and high speed; regular marine engines and outboard engines of all ranges of speed and compression. Every one of these classes necessitates a particular type of spark plug and, usually, this type will not give satisfaction if used in another class.

The failure of a spark plug to perform satisfactorily is quite often due to the use of a plug intended for a different type of engine, or for a different operating condition. No matter how good a spark plug may be, it will not give satisfactory service if it is of the wrong type. Generally the public fails to realize that there is a great deal of difference between spark plugs — not only in the quality of the material and workmanship used in their manufacture, but also in the heat characteristics of the plugs themselves.

The spark plug is exposed to the burning gases at its lower end and absorbs an amount of heat proportional to the surface exposed to the explosion gases. A part of the heat thus absorbed must be digested through the seat of the plug, but enough should be retained to keep the plug at a sufficiently high temperature to prevent fouling.

Plug fouling is caused mostly by the accumulation of a coating of carbon over the insulator, due to its low temperature. When the insulator reaches a higher temperature the carbon burns off, leaving the insulator clean again. The temperature of the insulator should, however, not become too high, or preignition trouble will result.

The temperature of the plug is affected mainly by the number of engine explosions per minute, the engine load, the cooling water temperature, the engine temperature, the kind of fuel used, the spark advance, the air fuel ratio, the humidity of the air and the temperature and draft of the air around the plug.

The insulator of the spark plug causes resistance to the flow of the heat, which takes a path as shown in Figure 1. The greater the length of the path, the greater is the ability of the insulator to store heat, and to reach higher temperature. It is thus possible, by changing the physical sizes of the insulator and shell, to design spark plugs which will meet any of the engine conditions mentioned.

It is important that the plug be kept at the right temperature to avoid fouling, since fouling is the direct cause of the engine's missing. The carbon which covers the porcelain may be compared to a short path laid across the ignition wires which diverts and steals a part, or all of the electrical energy that is to be delivered at the spark plug gap. This explains the advisability of using the correct gap.

We know that plugs deteriorate. If the temperature of the plug is too high, not only does rapid electrode wear occur, but pre-ignition and back-firing through the carburetor may be caused. This is not wanted in marine engines, when gasoline is used as fuel. Spark plug electrode wear is also governed by the kind of fuel used, and in some states legislation has already fixed the maximum sulphur content allowed in the gasoline sold to the public, with a view to avoiding too rapid deterioration, not only of spark plugs, but of the entire engine.

The insulator will condense fuel before the spark plug starts to collect carbon, if its temperature remains low enough. This takes place, especially when starting is difficult and shows up as an oil film which collects inside the plug. This film is often erroneously regarded as a splash of crankcase oil, pumped into the combustion chamber by the piston. Worn out engines may pump oil and splash it over the plugs when starting, but this does not occur in well kept up engines. Usually the excess oil that passes between the piston and the cylinder wall is vaporized, mixing with the fuel and enriching the mixture, thus aggravating the carbon deposit because of unburned fuel and the lower explosion temperature. After repeated attempts to start an engine, the plug may not spark because the insulator has become wet. The plug then has to be removed and thoroughly dried before it is put back. A new plug, installed to replace a fouled one, may also become fouled and wet at the start because of the excessive amount of oil which has accumulated in the

(*Continued on page 126*)

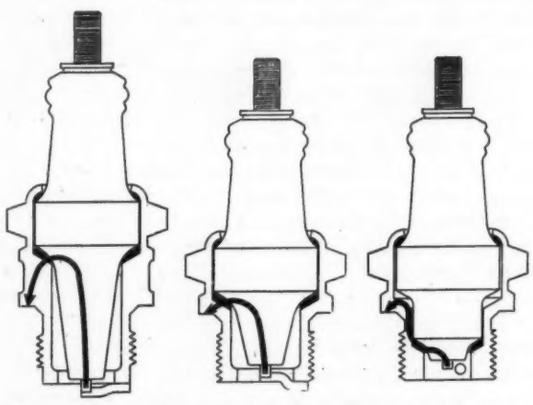


Fig. 1. The insulator of the plug causes resistance to the flow of heat, which takes a path shown by the black lines.

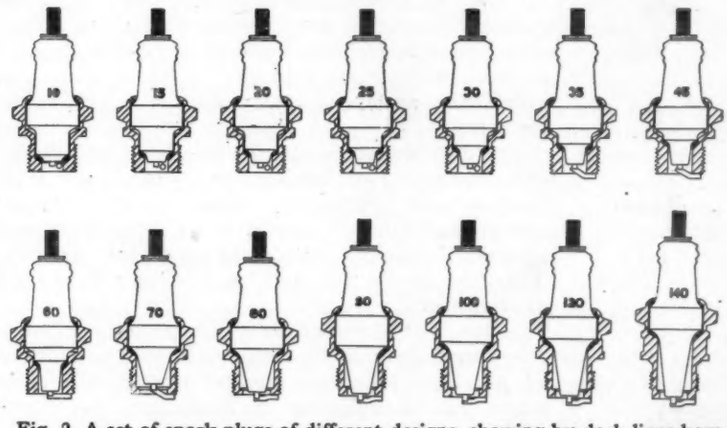


Fig. 2. A set of spark plugs of different designs, showing by dark lines how the working temperature is controlled by varying the resistance to heat flow in insulator.

A section of the main floor of the Grand Central Palace during the Motor Boat Show. At the right is the A. C. F. 40-footer, backed by the Fleetwing cruiser; while at the left is the Sea Gull commuter of the Robinson Marine Construction Co.

Some Impressions of the New York Motor Boat Show

The Casual Observations of a Visitor Who Has Long Been Interested in Yachting

By KEENE RICHARDS

FIRST of all, it was a superlative show. Beyond a doubt the best that the industry has ever staged. The number and size of the boats exhibited was far beyond anything in past years. The whole affair was a finished product and not merely a disjointed lot of exhibits thrown together.

Is the Show becoming too much of a spectacle and therefore losing some of its charm for the yachtsman? Its primary purpose, of course, is to sell boats and all that goes with them. At the same time it has become a Mecca for all the yachtsmen of the country who foregather in the East to break up the long winter and plan for the new season ahead. After all, do they not constitute the real market, directly or through their friends? If the Grand Central Palace is to be jammed with a crowd interested only in the spectacle presented, so that any real consideration of the various exhibits is impossible, is not the real purpose of the show nullified? The motor car has a much wider market than the yacht, but still only a very small percentage of its total sales are made at the automobile show. There the spectacle predominates.

There was a marked contrast between the types of salesmen at the different exhibits, and sometimes at the same exhibit. One class, so prevalent at one time in motor car sales rooms, strove to give visitors an inferiority complex. These salesmen indicated that they were conferring a favor by condescending speech with the rabble. I wonder what school of salesmanship teaches one that he must first mildly insult a "prospect" before he endeavors to make a sale. Or is this manner merely a mask for ignorance? The sale of automobiles has multiplied in spite of numerous epidemics of this form of selling effort. But the car has become a necessity of transportation. Remember that when motoring was numbered among the sports, very few makers were showing a comfortable profit.

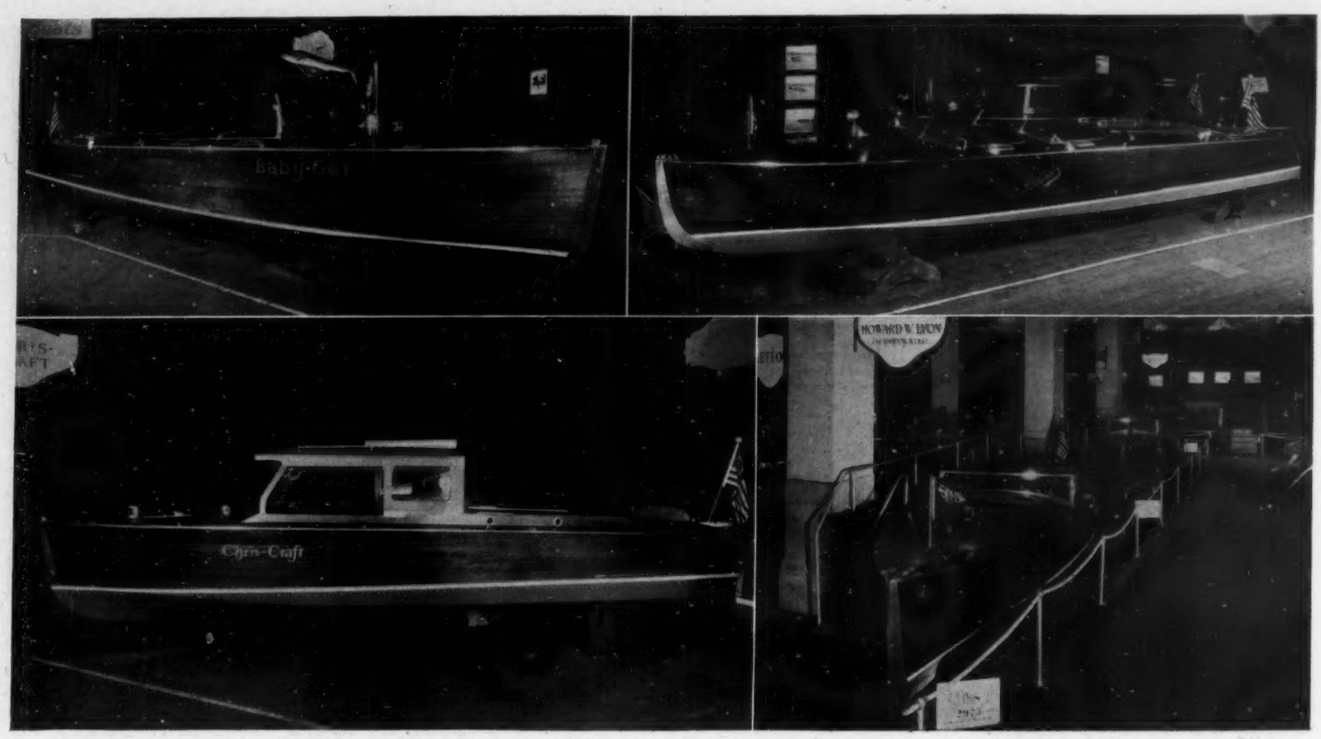
Yachting is primarily a sport, many think the best of them all. Except in comparatively rare cases, the boat is used for pleasure. Health, sport, and transportation are by-products. Unless pleasure is present from start to finish, the game will suffer.

The supercilious type of salesman has no place in yachting. Fortunately, this class was much in the minority. On every hand were courteous and capable gentlemen ready and willing to answer not only the intelligent questions of the experienced sailor, but the strange and often silly queries of the sight-seeing public. Try that task for twelve hours some Saturday, and if you can still smile and come back for more, you have a real disposition.

The automobile body designers seem to have gotten their hands on the runabout manufacturers. Some of the boats resembled small floating country clubs, with enough nickel and plate glass aboard to sink them. I hate to think what they will look like after a few weeks on salt water. The latest touch seems to be the installation of a rear view mirror on the windshield. This, no doubt, anticipates the marine speed "cop."

As a class, the runabouts are really beautiful. On the whole the average quality of workmanship seems to be just a little finer than on the cruisers. In spite of high speeds, there seems to be no tendency for this type to degenerate into fair weather engine-platforms. The better makers have sacrificed little or nothing of sound hull construction, or seaworthiness, to speed. As to their engines, they are excellent. Some installations still leave something to be desired, but the very important matter of fire protection is generally well taken care of, and accessibility is almost always good. This type has truly become the automobile of the water.

The gap between the runabout and the cruiser is bridged this year by a new type, which is really a small edition of the "commuter" as seen on Long Island Sound. This class runs all the way from the runabout, with a top and



As a class, the runabouts at the Show were beautiful. Here is a handsome quartette. (Top row) Gar Wood's Baby Gar and a Hacker Dolphin; (bottom row) a Chris-Craft Sedan, and a Sea-Lyon 24-footer.

windows, up to one model which might be classed as an express cruiser. Speed, of course, is the predominant note, and while often quite commodious, and generally luxurious, cruising accommodations are secondary. This type should have a very definite field. It will curb the tendency for too much speed in the out-and-out cruiser by providing week-end accommodations for the yachtsman whose average demand is met by the runabout type. Like the runabouts, they are beautifully built, but show the same tendency toward too many fittings and more bright work than the average owner will keep up properly.

Sail was conspicuous by its absence. I saw only two sailing craft, and these looked lonesome among so many motor boats. There have been a number of small cats and sloops in previous shows, and their absence is certainly a step backward. Why does not someone exhibit a standardized auxiliary cruiser? There are many of them built and sold each year. With so many new converts to yachting, it would surely pay to get this type of craft before the public. True, there were plans and models for inspection, but to the newcomer in the game these mean little. The stock boat builders have proved that the boat herself is the drawing card. An auxiliary can be just as comfortable as a power boat, but the public will never believe it until shown.

This year, as before, the cruisers held the center of the stage with a remarkably fine display. With sizes to fit the purse and requirements of almost anyone, the stock boat reigned supreme. Both yachtsmen and the general public seemed perfectly willing to stand in line for a chance to climb aboard. The opportunity to make comparisons between the different models was one of the best things about the show. The most popular sizes seemed to be from 25 to 45 feet in length.

The perfect cruiser of this size should be seaworthy, comfortable, good to look at, and fast. Obviously, all of these cannot be had except to a moderate degree in such a craft. The inevitable result was compromise. It was interesting to note the way each builder stressed the things he thought the most important, and compromised with the rest. Of course the manufacturer must give the buyer what he wants, in so far as it is humanly possible. At the same time there is an obligation to educate the public to want the right kind of boat, or the industry will suffer in the end.

To their credit, the exhibitors seemed to have sacrificed very little of seaworthiness. Some designs were naturally better than others, and methods of construction differed still more, but there seemed to be no cruisers there that could be called unseaworthy. Naturally a boat of this size and of the usual cruiser type has very definite limitations, which must not be exceeded.

The question of comfort and accommodations was answered by as many different plans as there were boats. Some designs sacrificed too much in this respect. The result was a sort of apartment afloat. It certainly was not a cruiser in the real meaning of the word. In others there was too great a tendency to cut the cabin space into small compartments. The experienced cruiser knows this to be a mistake, however much ingenuity was displayed in the utilization of all available space for lockers and shelves for stowage. Ventilation, while inadequate in some cases, is receiving more attention, as it should; for the smaller the boat, the more important it becomes.

Most builders place the galley where it belongs, as nearly amidships as the design permits, realizing that in rough weather the cook needs as much stability as can be secured. Galley ventilation, however, has not received the attention it deserves. One cruiser of excellent design in every other particular neglected any ventilation for the galley. The stove was so placed that all the fumes from cooking were discharged directly into the face of the unhappy cook. When it is realized that after the engine the galley is probably the most important part of the equipment of the cruiser, this department may ruin the craft, if it is poorly planned.

There was a tendency to sacrifice deck and cockpit space to gain additional room in the cabin. This should

not be done. Very few waking hours are spent below, even when on a cruise, and for day runs and week-end trips practically all the time is spent on deck. This portion of the cruiser must be livable.

The most marked change in accommodations is the popularity of the forward cockpit. Practically every builder has at least one such model. Such an arrangement adds much to the enjoyment of the owner and provides a fine place from which to handle ground tackle. These have generally been made safe by providing large scuppers and an adequate watertight cover. A sea shipped forward might otherwise prove dangerous. Further, if a companionway or hatch leads below it has been made reasonably watertight.

The Chenevert Corsair cruiser was a finely modeled 30-footer with a large forward cockpit, a well-thought-out cabin and a roomy cockpit, aft.

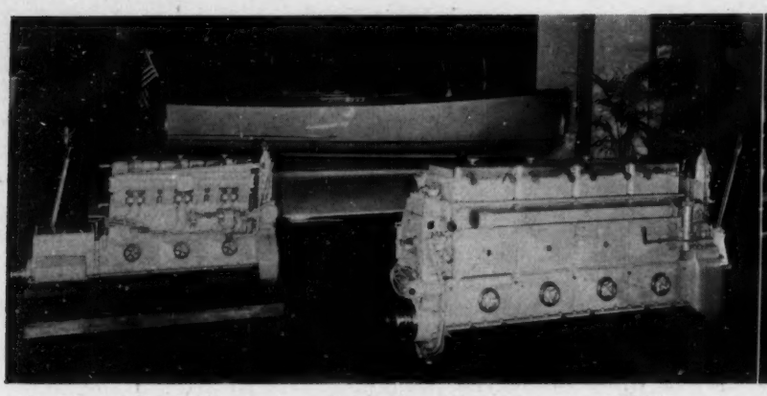
Beauty has been sacrificed to roominess in many of the small cruisers. With length limited and the necessity of securing both good head room and light draft, only beam is left. And it has been taken advantage of. Generally the results are not bad. In some cases, however, a squat, slab-sided hull with too much cabin is the result. And generally, when you look below aboard the worst specimen, you will find she has the best accommodations for her size in the Show. It is just a case of getting what you want, for you can't have everything in a small boat.

In the cruiser class there were really no cases in which speed was obtained at the sacrifice of the other virtues. The average speed is creeping up, owing rather to improvements in motors than to changes in hulls or the installation of larger motors. In other words, the engine builders are furnishing more power for the same weight and bulk. Installations are better, particularly as regards fire protection and accessibility. There is still much room for improvement in the engine compartment. Every builder should be required to make ordinary engine repairs aboard his craft in rough weather before he puts her on the market. And then we would get accessibility.

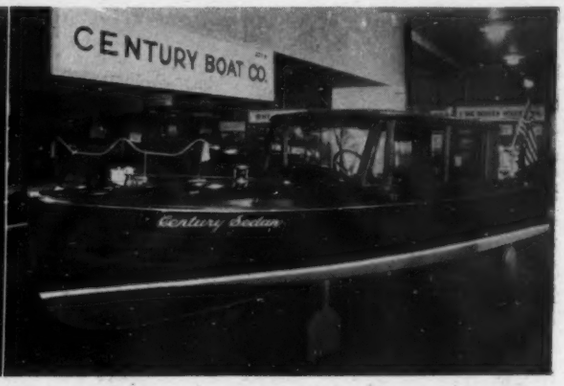
As usual, the second floor of the Palace was given up to power plants and small boats. The improvements in engines are most remarkable. We must not forget that marine engines were the leaders in internal combustion prime movers before the automobile was developed. Then for a period of some years the motor car builder passed the marine builder in the matters of reliability and convenience. Once more the marine engine seems to be taking the lead. Certainly no exhibit of motor cars can show a finer display of motive power than that packed into the Motor Boat Show. All models showed the results of real study and research. No longer need the boat builder be content with a compromise. There is a type and size of engine exactly suited to every hull design.

Mass production and standardization were everywhere evident, both in the interchangeability of parts and in the really moderate cost for such a fine product. Marine engines will always cost more than automobile types; but they will also last longer and be called upon for harder and more continuous effort. Improved fire protection devices to guard against back-fires, fuel pumps, oil filters and coolers, and other refinements were shown on even the smaller jobs.

The most conspicuous exhibits among the power plants



The Dyer 21-foot high speed runabout was a fine piece of boat building. Two new Winton Diesels in foreground.



The Century Sedan, exhibited by the Century Boat Company, was a handsome runabout.

were the Diesels. They are certainly a lot smaller and lighter every year, but in many instances still seem too heavy for the smaller cruisers. The contrast between the four-cylinder Diesel of 30 or 40 horsepower and the six-cylinder gasoline motor of the same output and less than half the bulk and weight is still in favor of the older unit. Yachtsmen are no longer satisfied with the four-cylinder motor, as is evidenced by the large number of multi-cylinder engines shown, and the present Diesels must suffer thereby. Where space is available for the multi-cylinder types these new engines should make an almost ideal form of motive power. But for the smaller boats they seem to be at the same stage of development as the heavy duty gasoline engine of several years ago. The starting problem seems to have been solved, and as weight is decreased and speed raised they are bound to prove very popular.

The outboards were present in countless numbers and sizes, with hulls for every use, from racing to cruising. The speed and comfort available in these little boats is certainly astonishing. While some of the racing models are nothing but flimsy engine-platforms, there were some designs that were comfortable, fast runabouts. Certainly this branch of the sport offers the most for the least money. The outboard motor builders have begun to realize that the noise of their product has been something of a nuisance in the past, and the new models all show improved silencing devices. The larger motors have grown to the point where they are hardly detachable, and scarcely portable, unless with the help of a crane and a truck. The big fellows seem to be encroaching on a field that might be better served by the regular inboard installation. Nevertheless, their ease of installation, low cost, and compactness offer real competition for the smaller inboard motors. As was the case in the early days of the conventional type of marine motor, undue stress is laid on the purely racing form of outboard, when as a matter of fact their other uses are legion.

The upper floor offered much of interest to the person who is already an owner, as well as to the prospective boat buyer. The old-timer is always in search of some new or improved device to enhance the comfort or appearance of his craft. Here he could roam about in a Seventh Heaven of gadgets, and stuff his pockets with circulars and samples. Here also were the exhibits of the naval architects with their plans and models. Boating magazines and nautical literature held sway near fittings and uniforms and all the other things dear to the sailor. To me, this was one of the best parts of the whole affair. It is right and proper to place these exhibits on the third floor. If placed on the first floor, too many visitors would get no further.

In every nook and corner were small groups of yachtsmen, or amateur sailors, motorboatmen, or what you will, exchanging greetings, swapping yarns and talking it all over. Don't you ever believe that we are no longer a seafaring people. At any rate, you can't go to the Motor Boat Show and still believe it. So never mind the weather. The show has opened the season, and spring is just over the horizon.

And Now the Hydrofoil!

Submerged Metal Planes Make Their Appearance on Outboard Powered Boats

TWO little craft that held the attention of many visitors at the recent Motor Boat Show in New York were a 12-foot racer and 15-foot runabout, embodying principles which have been the subject of experimentation for many years, but which were shown to the general public for the first time at the Palace. To the bottom of these boats, which were designed to be driven by outboard motors, were attached submerged metal planes or hydrofoils designed to lift the hull entirely clear of the water when speed was attained, thus decreasing resistance from the water and eliminating skin friction. In theory, these small metal planes are so adjusted that they carry the entire weight of the boat when the engine is opened up, the hull itself being lifted entirely clear of the water. These hydrofoils are, in fact, miniature wings, acting on the water as an airplane wing, or aerofoil, acts on the air. But with this difference — that while an aerofoil has to be large in area, the hydrofoil is of very small area as

The Ski-Boat, a 15-foot runabout with metal planes or hydrofoils, making a hairpin turn at top speed.

The 12-foot outboard racer exhibited by the Ski-Boat Corporation. At speed, the hull is lifted clear of the water and rides on the metal hydrofoils attached to the bottom and chines.

compared with the hull itself, due to the greater density of the medium in which it works.

Extensive experiments have been carried on for years with these planes or hydrofoils by Cooper Hewitt, Forlanini, and by Dr. Alexander Graham Bell at his laboratory at Baddeck, the last-mentioned scientist, associated with F. W. Baldwin, having produced several larger boats that successfully proved the soundness of the theory, while Mr. Baldwin has carried on the work since Dr. Bell's death.

Everyone knows that to obtain extremely high speed in small boats it is necessary to reduce displacement and wave-making resistance by lifting the boat out of the water and making her plane or glide over the surface, thus reducing the bearing surface of the hull and sacrificing those elements of design which tend to produce comfortable and able hulls. This has been accomplished by the use of steps in the bottom. When a boat is running at high speed only a small edge of these steps rests on the water and the boat's stability is reduced, often beyond the point of safety, as is shown by the number of capsizes and sinkings in races between boats of this type. In other words, to obtain high speed the boat must be so constructed that a minimum area of bottom is in contact with the water. This has made it difficult to produce a small speed boat suited to any but smooth water.

In the early experiments with hydrofoils above referred to, specially designed hull forms differing from the conventional were used, and difficulty was experienced in finding suitable standardized power plants. But with the perfecting of high powered outboard motors, the last requisite for a practical craft embodying these principles has been provided, and it now seems possible to obtain a boat with the good qualities of the conventional form that will be practical and safe at very high speeds.

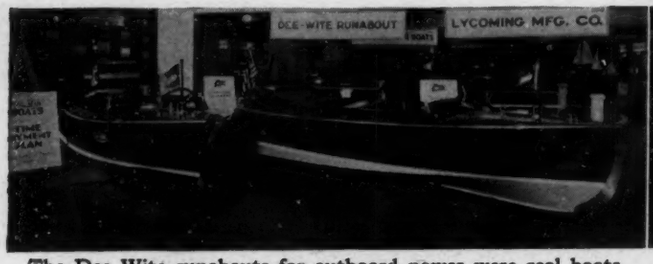
The two boats seen at the Show were exhibited by the Ski-Boat Corporation. The runabout was a well built, wholesome model, of very moderate beam and with lots of room in her. As stability is provided by the hydrofoils there is no need for undue width in the hull. In both boats there was one metal plane, or hydrofoil, forward, under the bottom, and one on either quarter, well aft and projecting some inches outside the chine. In riding in these boats one has a sense of great security. In rough water the pounding is greatly minimized and they run smoothly, without the physical punishment one has come to look for as a necessary feature of high speed.

The 12-foot racing outboard Ski-Boat, showing the hydrofoils.

In the 12-foot racing model the hull is streamlined with a turtle back deck, making her dry and comfortable for the driver. There are two watertight compartments in the stern, sufficient to float the outfit, one of these extending aft on either side of the motor, which is attached to an adjustable motor bracket on the transom. This bracket affords a means of supporting any motor at just the proper height to get the best results from the propeller, an important feature often overlooked by racing drivers.

At the laboratory of Dr. Alexander Graham Bell the hydrofoil theory was successfully demonstrated by Dr. Bell and F. W. Baldwin, and a great amount of data obtained. Here is a special hull, driven by air propellers, which they constructed, the boat being lifted entirely clear of the water.

We have not seen figures showing the amount of power necessary to get these boats out of water and riding on the hydrofoils, as compared to that necessary to make the conventional hydroplane "plane." If it does not require too much power to hold the boat above the water, the Ski-Boat should offer many advantages from a racing standpoint. Already speeds between 35 and 40 miles have been obtained.



The Dee Wite runabouts for outboard power were real boats, comfortable, seaworthy and fast.

The Chase-Emerson 16-foot outboard runabout with two cockpits was a well designed craft that held the attention.

Keeping Up With the Outboards

A YEAR ago it seemed to many as if outboard motors, and hulls designed especially for them, had reached a stage of development beyond which there would be nothing but a few refinements. A study of the motors and boats at the show quickly disillusioned one. Refinements there were, on every hand. And also on every hand were new models, refined models, new features of all kinds — larger motors, smaller motors — racing models and utility models — and boats of every kind and description to accommodate every type and size of engine, and to do anything asked of them, from racing to utility work, or even cruising.

While the smaller "eggbeaters" of some two h.p. are still around, most of the models show a decided increase in power — and some in number of cylinders — until now we have the four-cycle radial motor with five cylinders which the makers claim will deliver 50 h.p.! To be sure, some of these giants can scarcely be called portables, in the sense that they can be quickly lifted off the stern of a boat and carried away. Still, they are detachable outboards, and may be installed on the stern or quarter of a boat without recourse to an engine bed, horizontal shaft, stern bearings, stuffing boxes, etc.

The great majority of the outboards are still two-cycle, two-cylinder affairs. There were two little one-lungers, a four-cylinder model improved from last year, a new four-cylinder model, and still another of this type announced, but not yet ready for a public introduction. Weights range from 165 pounds down to less than 30 pounds, with the majority running between 40 and 55 pounds.

Several manufacturers, appreciating the fact that extreme speed and power in a racing model would seldom be satisfactory in a motor for everyday use, are putting out both racing and utility models. The utility model is a thoroughly husky, powerful, durable machine, which will give long service in the hands of the average user. The racing model has the same bore and stroke, but is lighter, turns up many more revolutions, and therefore develops more power. This is an excellent move. The racer may have his power and speed, and disregard long life and endurance. The everyday user is assured of a rugged motor, reliable and economical, full of "pep" and endurance for the long or the short haul.

Practically all the manufacturers show vastly improved muffling devices. The majority of these combine an expansion chamber with under water exhaust, cleverly designed to eliminate the noise of the explosions and at the same time do away with back pressure. Two concerns now incorporate a compression release for ease of starting. The majority still employ magneto ignition, but one maker sticks to battery ignition, with spark plugs and coil cleverly enclosed in a waterproof aluminum housing. Carburetion and oiling systems have been improved all along the line, and refinements of all kinds have added greatly to the efficiency and power of many models without recourse to larger cubic capacity.

One new model which caused much favorable comment was a three h.p., twin-cylinder machine, weighing less than 40 pounds, with a hinge at the upper end of the shaft housing, so that wheel and shaft could be folded up against the upper unit. So folded, the entire outfit measured only 22 inches long and 11 inches wide and deep — so small that it could easily be stowed in a small locker. The maker of this motor also showed an ingenious remote control for the motor, so that spark, throttle and steering could be handled perfectly from well forward in the boat, without requiring the helmsman to go aft to fiddle with the motor.

While racing hulls were shown in every style, type, size and form, there was a notable trend of the majority of outboard boat builders to turn out real utility craft, such as runabouts, fishing craft, and even cruisers. The small runabouts shown, which could be driven up to around 25 miles an hour with any of several motors, were beautiful in design, construction, finish and equipment, and would seem to be close competitors to their small inboard-driven sisters. Windshields and cockpit enclosures made their appearance on several of these craft, and a few builders even went so far as to turn out small

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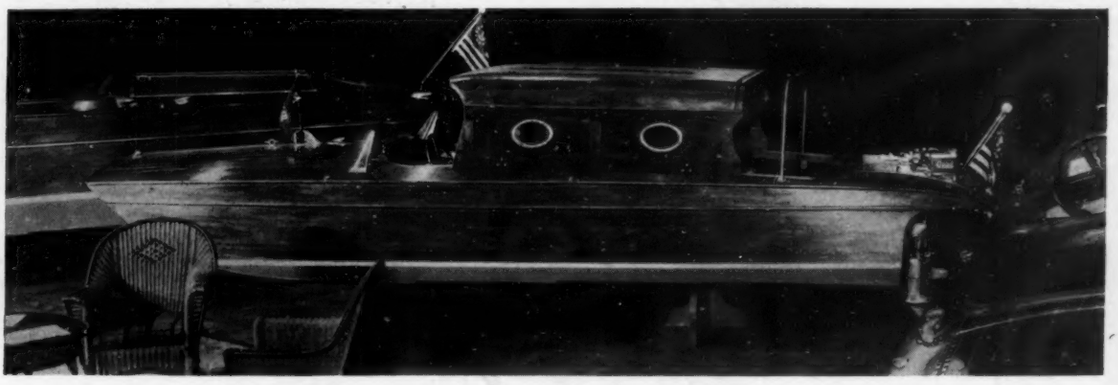
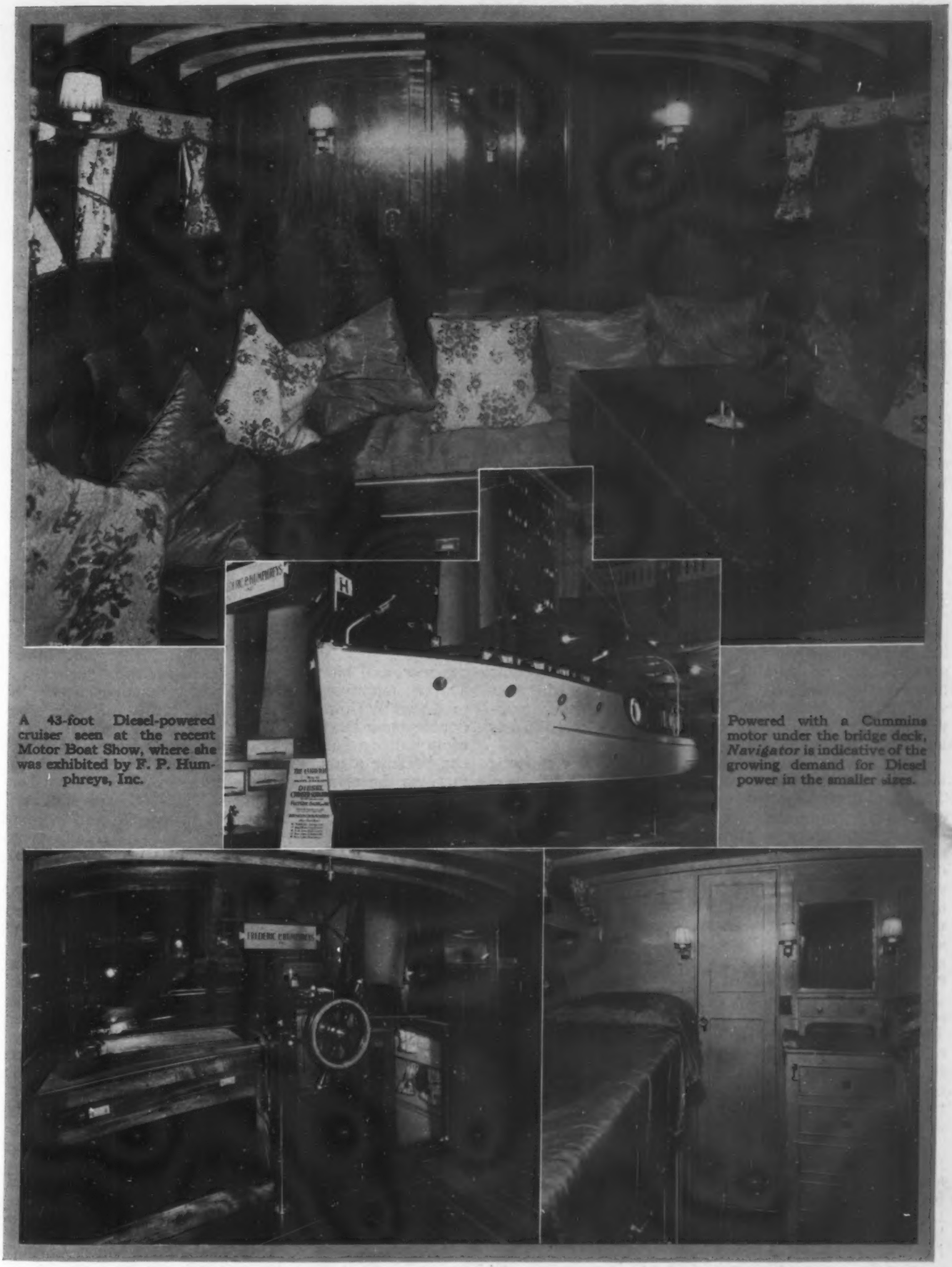


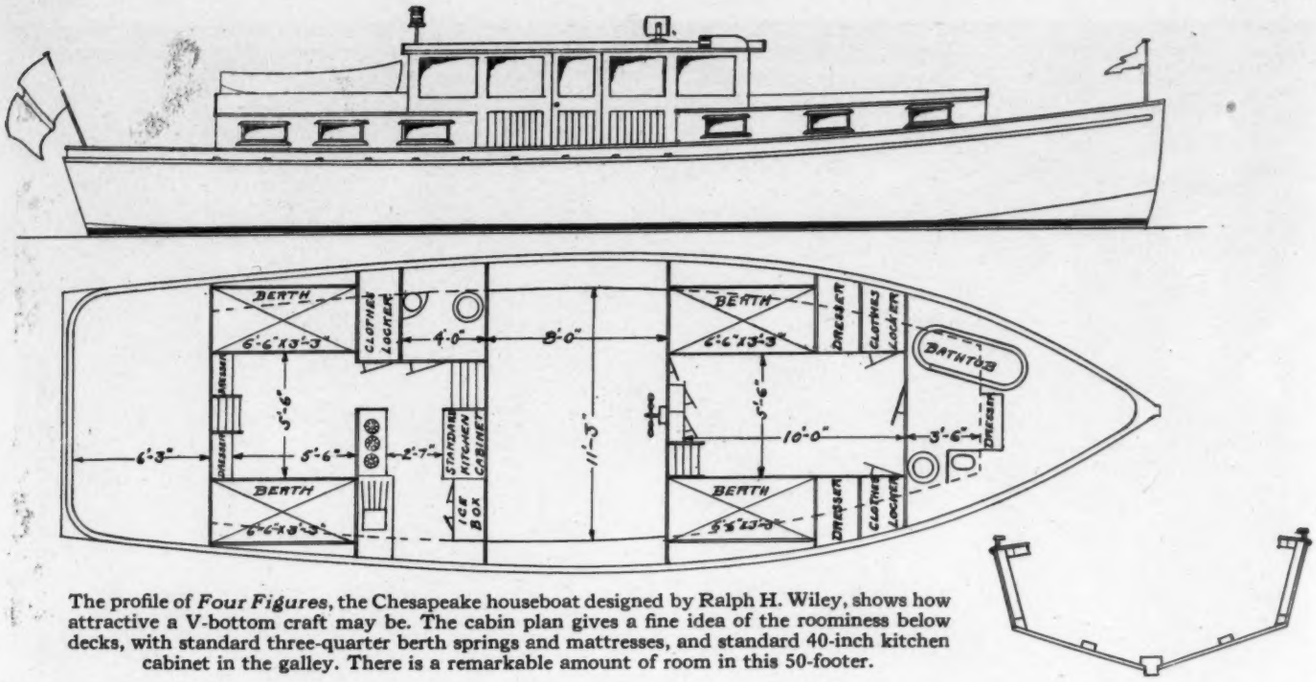
The Sea Sled Sedan outboard runabout, 20 feet over all, provided real cruising accommodation. The sedan top was mounted on a track and made to cover, at will, the seats or beds, forward, or the galley, aft. A well-laid-out-job.

A Small Diesel-Powered Cruiser at the Motor Boat Show



A 43-foot Diesel-powered cruiser seen at the recent Motor Boat Show, where she was exhibited by F. P. Humphreys, Inc.

Powered with a Cummins motor under the bridge deck, *Navigator* is indicative of the growing demand for Diesel power in the smaller sizes.



The profile of *Four Figures*, the Chesapeake houseboat designed by Ralph H. Wiley, shows how attractive a V-bottom craft may be. The cabin plan gives a fine idea of the roominess below decks, with standard three-quarter berth springs and mattresses, and standard 40-inch kitchen cabinet in the galley. There is a remarkable amount of room in this 50-footer.

Four Figures, A Maryland-Built 50-Footer

ACCORDING to Ralph H. Wiley, yacht designers and boat builders in general have badly twisted ideas as to the economics of the average seagoing American, forgetting, it seems, that the cruising man's ability as a loafer is frequently in inverse ratio to his income. In the accompanying design of the 50′ x 14′ x 3′ Maryland-built houseboat-cruiser, Mr. Wiley has designed for the man with much leisure and limited means a thoroughly practical boat, which, because of her moderate cost, he has aptly named *Four Figures*.

The Chesapeake, with three times the area of Long Island Sound, produces at times considerable weather. The shoal draft V-bottom or deadrise work boats developed to ply these waters are remarkable craft, seaworthy, of great structural strength, easily driven and particularly economical to build. In *Four Figures* all the good qualities of the work boats are retained, with the addition of such refinements of lines and finish as to produce a surprisingly trim cruiser.

The layout shown gives ample room in all quarters. The finish is plain throughout, and the construction is heavy. The husky Buda GM-6 6-cylinder, 4½ x 6 motor should drive this hull at a good speed.

For those who desire a plain boat with maximum ability and accommodations for the outlay involved, this design should fill a long felt want, particularly for cruising in shoal waters.

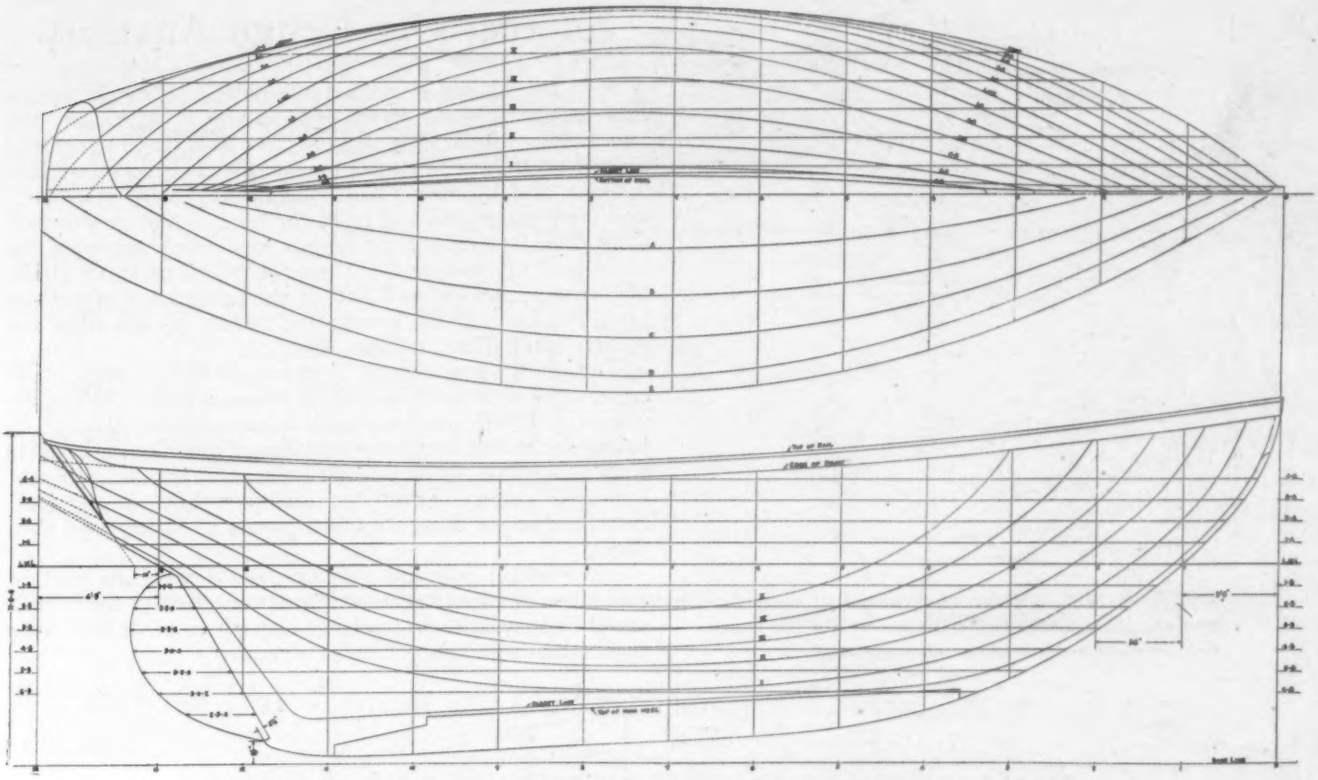
A Seagoing Cutter — Nearly a Double-Ender

FOR many years, in many localities, double-ended craft have been known for their excellent performances under strenuous conditions of wind and water. As many readers of YACHTING know, the late Colin Archer developed this type farther, perhaps, than any other designer, and his craft were famed for their perfection. The accompanying design of a husky, seagoing cutter was produced by Howard M. Smith, Jr., with the Archer type double-ender in view, but as the owner wanted full headroom under a flush deck, and a wheel instead of a tiller, she became a double-ender in principle rather than in fact. As the plans show, she differs somewhat from her prototypes in several respects. The freeboard is lower, the displacement greater, draft a bit deeper, and there is less shoulder and fullness on deck forward. The principal dimensions are: l.o.a. 43′; l.w.l. 36′; beam, 13′3″; draft, 6′9″; sail area, three lowers, 1095 sq. ft.; total sail area, 1327 sq. ft.; iron keel, 12,000 lbs.; inside lead, 5,000 lbs.

Sail plan of the cutter designed by Howard M. Smith, Jr.

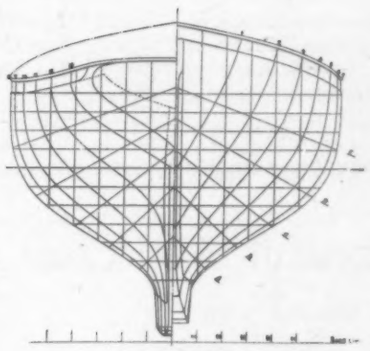
During the season just past, she has lived up to the expectations of both owner and designer in every way, being able and dry, easy to handle, and with a good turn of speed. Her Diesel motor kicks her along satisfactorily when the wind fails, a Delco lighting plant supplying current for lights, etc.

The flush deck combined with the ample beam is responsible for a cabin which is noteworthy for its roominess and comfort, the layout differing considerably from



Waterlines, diagonals and buttock lines of the 43-foot cutter designed by Howard M. Smith, Jr.

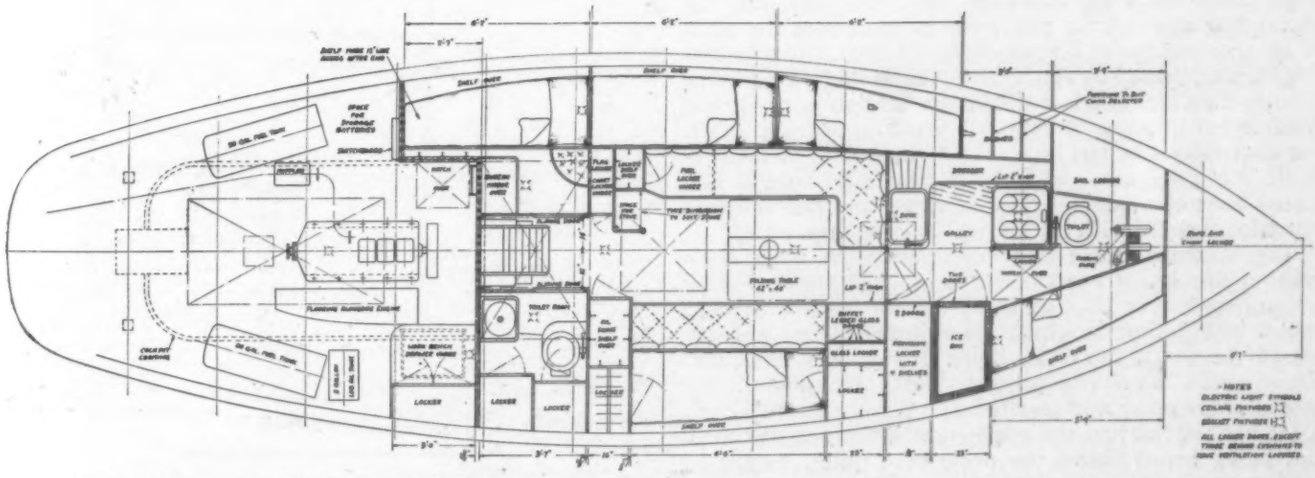
most boats of the same size. A single stateroom is found to port of the companion steps, with a large toilet room, locker, etc., opposite. The main cabin has two built-in berths to port, always made up and ready for occupancy, with another berth opposite. Sitting transoms are built in front of all berths, and there is an abundance of lockers, shelves, bureaus, and other stowage space. The forward galley is a real one, both in size and equipment, with four-hole Shipmate stove, large ice box, and every convenience for the cook. A berth and toilet for a paid hand are forward of the galley, with a chain locker in the eyes.



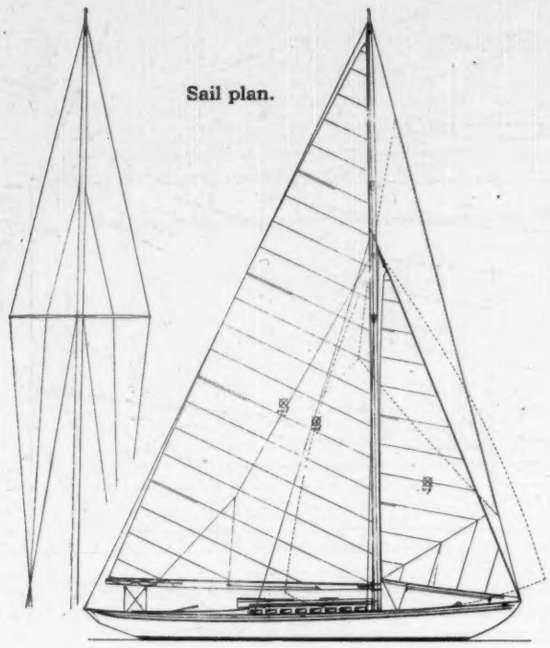
Sections.

The engine compartment aft is bulkheaded off from the rest of the ship, and contains the Delco set, batteries, water and fuel tanks, etc. Cabin trunks, skylights and hatches have been carefully designed to get the best possible ventilation and light.

The construction is heavy, though not cumbersome, and the hull is planked with mahogany, painted white. A tile fireplace in the main cabin adds greatly to the pleasure of cruising in the "off" months of the season.



The interior accommodation plan of the Smith-designed cutter shows how well the large amount of room has been utilized.



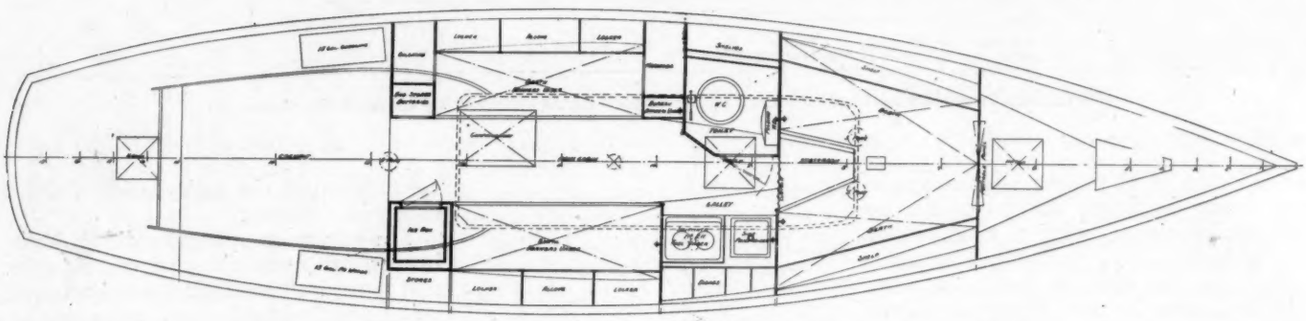
Sail plan.

Another One-Design Auxiliary

LAST month we published the design of an attractive auxiliary sloop developed on the West Coast, the idea being to form a one-design class of craft which would have a good turn of speed, reasonable cruising accommodations, and, by means of a small motor, ensure the owner and crew getting to and from the race course on windless days. The accompanying design was developed with the same goal in view, and is from the board of P. H. Blair, of Chicago, and shows a boat of the following dimensions: l.o.a. 39′; l.w.l. 28′6″; beam, 9′4″; draft, 6′; sail area, 744 sq. ft.; lead ballast, outside, 3000 lbs.

The plans show a boat of moderate sheer, fairly short ends, and firm sections, with a reasonable jib-headed sloop rig. The beam is sufficient to ensure good elbow room below decks, the interior plan calling for a nice main cabin with two berths, galley, toilet room, and two more berths forward. There is good stowage space both in the forepeak and in the lazarette, and plenty of locker and shelf space.

The cockpit is ample for fair sized day sailing parties, and there is plenty of room under the bridge deck for a small light weight motor large enough to push the easily driven hull a good seven miles an hour.

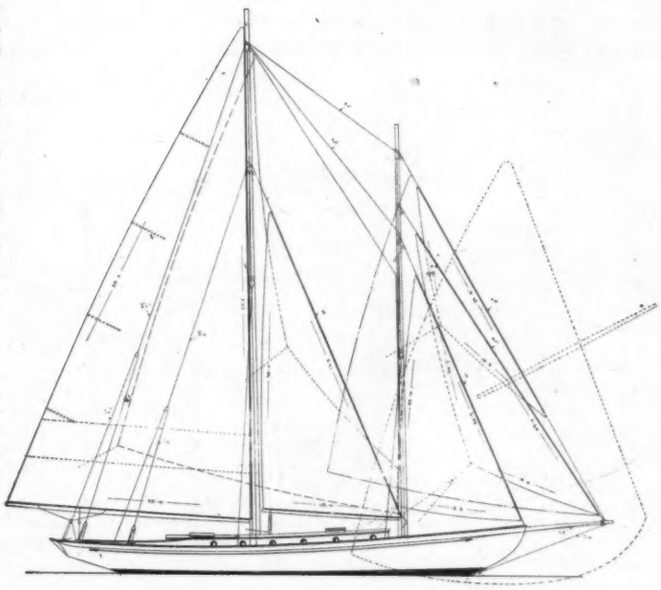


Accommodation plan of the 39-foot one-design auxiliary sloop designed by P. H. Blair.

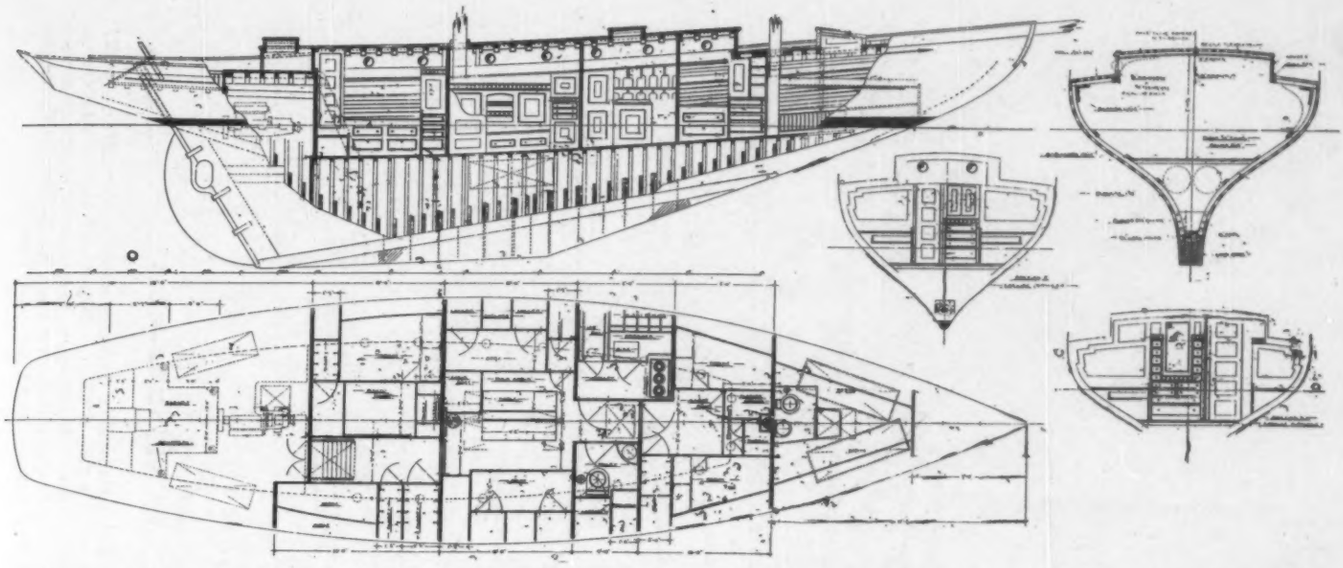
Highlander—A Successful West Coast Auxiliary Schooner

READERS of YACHTING are already familiar with some of the craft turned out by Edson B. Schock, the well known Los Angeles designer, whose schooners *Scaramouche* and *Monsoon*, and Class R boats *Debra*, *Pirate* and *Heather*, have made enviable records and have been much admired wherever seen. On this and the succeeding page we are privileged to reproduce the plans of another successful Schock-designed craft, the schooner *Highlander*, owned by Al Christie, the well known moving picture director. She is a distinctly handsome craft, and reminiscent of some of Schock's previous cruising craft, her dimensions being: l.o.a. 61′6″; l.w.l. 45′; beam, 15′; draft, 8′6″; sail area, 2200 sq. ft. She is an outside ballasted boat of moderate displacement, and has shown a fine turn of speed with her staysail schooner rig.

The inboard profile and accommodation plans show what a fine lot of room there is in *Highlander*. This is accounted for, in part at least, by the rather unusual motor installation, in which the motor is placed well aft, above the shaft, the latter being driven by a Link-Belt silent chain. Everyone predicted that this installation would prove noisy and unsatisfactory, but in actual service it has proved just the opposite, the noise of the chain not being heard above the noise of a quiet, 4-cylinder engine.



Sail plan of the 61-foot Schock-designed schooner.



Inboard profile, sections, and cabin layout of the 61-foot auxiliary schooner designed by Edson B. Schock, described on previous page.

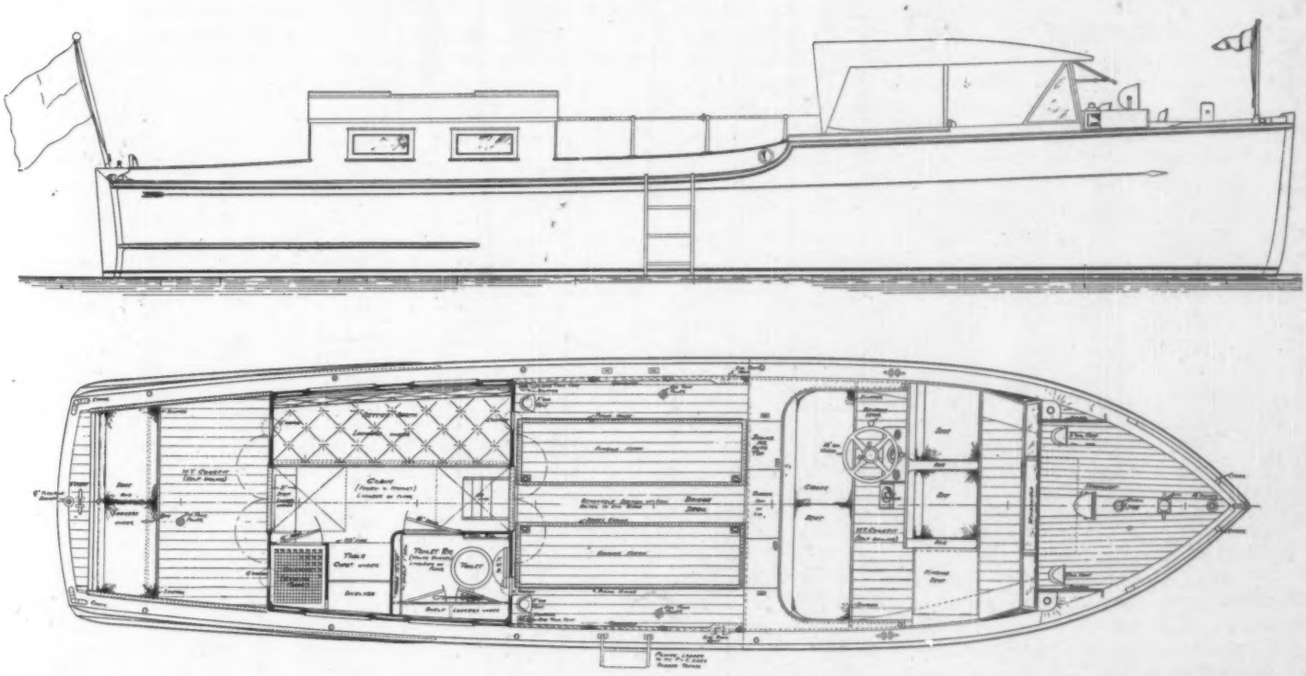
A Fast Day Cruiser of Distinction For Use in Maine Waters

A YEAR ago John G. Alden turned out a snappy little day cruiser for Commodore Emil Schmidt, which was used with great success for short trips around Put-in-Bay. The plans below, from the board of the same designer, are a development of Commodore Schmidt's boat and show a 32-footer with 7 feet 6 inches beam, with small cabin, after cockpit and spacious forward cockpit. A 200 h.p. Sterling Petrel motor is expected to drive this craft a good 25 miles an hour. She is being built for Mrs. Eleanor Saltonstall, for use near North Haven, Maine, where she will often be called upon to cross the rough waters of Penobscot Bay.

The after cockpit has an athwartship seat, and will comfortably accommodate several people. The cabin has a single berth, toilet room, dresser, and a large locker.

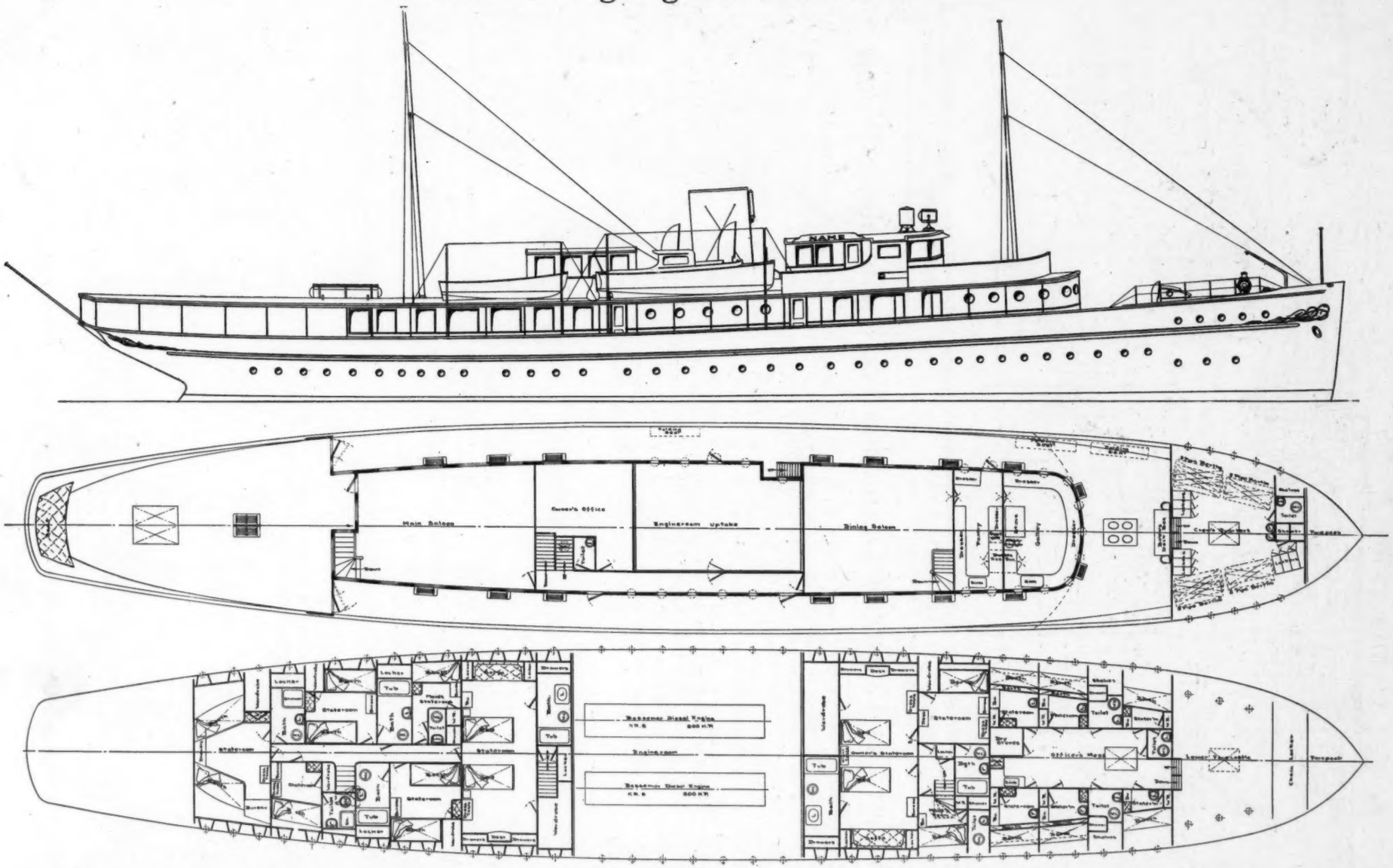
The forward cockpit, which is self-bailing, has two very comfortable upholstered seats besides the cross seats. When closed, the automobile-type top folds into a compartment and is flush with the deck. Steering and motor controls are of runabout type, in the forward cockpit. The motor is installed under the bridge deck amidships, and is easily accessible through flush hatches.

Construction is well along at Britt Bros., East Lynn, Mass., ensuring early spring delivery.



Outboard profile, cabin and cockpit plans of the 32-foot fast day cruiser designed by John G. Alden for Mrs. Eleanor Saltonstall, for use around North Haven, Maine.

A 175-Foot Seagoing Diesel-Powered Yacht



The design of the 175-foot seagoing Diesel-powered yacht shown above is the latest from the board of Thomas D. Bowes, M.E., of Philadelphia, and is similar in many ways to *Memory III*, built last year for A. E. Fitkin, of New York. The new craft has a beam of 27 feet 6 inches and draft of 10 feet, the motive power being a pair of 800 h.p. Bessemer Diesel motors. On the boat deck is the wheel house with enclosed fly bridge, chart room, captain's stateroom and bath, a smoking and lounging room, and wireless room. The owner's suite is forward of the machinery space, and consists of one double and one single stateroom, two baths, maid's room and bath. The guests' quarters aft consist of four double staterooms, one single stateroom and five baths. On the main deck are found the main saloon, owner's office or smoking room, dining saloon, galley and pantry. Spacious crew's quarters are found forward.

Under the Lee of the Longboat

by Cap Stan

WHILE this year's New York Motor Boat Show was very much like previous shows, it can truthfully be said that it was bigger and better than ever before. The gaps on the third floor of last year's show were filled this year. Exhibits were of a higher class, and booths more tastefully arranged and decorated. Excellent business was reported by quite a number of exhibitors, particularly in the boat line, whereas one or two accessory people claimed only a third as much business as they did a couple of years ago.

Outboard motors. What a mess of them! Some big enough to require a crane and a truck to be classed as portables, others so light they could easily be lifted in one hand — and one new one, of the folding variety, which could easily be stowed in a small boat locker. And all of them decidedly improved, particularly as to mufflers, so that proposed legislation against the noisy critters may not be necessary after all. Plenty of racing outboard hulls, to be sure, but a gratifying increase in the runabout and family type craft, and cruisers, which will be the mainstay of the game as the craze for speed subsides.

The gap between cruiser and runabout is now being bridged by some new types, half cruiser, half runabout — with speed, double cockpits, and a fair cabin with a few necessary appurtenances for comfort. Forward cockpits were decidedly on the increase, especially in the fast cruiser class.

New motors, improved motors. One or two new Diesels, but the decrease in size and weight of this class of engine was not so noticeable as some expected. Still, the small, high speed, light weight Diesel is on its way. Give it a chance.

The third floor contained some of the finest exhibits of accessories one could imagine. Every possible gadget was there, down to the 10-day anchor light recently described in YACHTING. A new reversing and feathering wheel, soon to be manufactured under foreign patents in this country, seemed to have decided possibilities. Backfire engine traps, for reducing the fire hazard, made an appearance, as did a new marine speedometer. Paints, varnishes, blocks, rope, bronze and brass fittings of every conceivable sort — anyone looking for the latest and best in the equipment line had only to roam around the third floor to find it.

It was a great show, and one which will be hard to beat.

* * *

While the Boston Show suffered somewhat in comparison with the New York affair, there was one respect where it had it all over New York like a club topsail — and that was in the display of model yachts. There were a dozen or more beautiful craft, of the type which race both here and abroad. And there were two or three times that number of models of small sailing craft of different sizes and types turned out by public school children — and the job which those 12-, 13-, and 14-year-old youngsters turned out would knock your eye out. One of the most interesting was a little sloop credited to a 12-year-old girl — a little crude, perhaps, but a pretty fair model at that. If the interest of these Boston youngsters in boats is any criterion of what is happening in other localities, the sailing game is going to have some valuable recruits in the years to come.

* * *

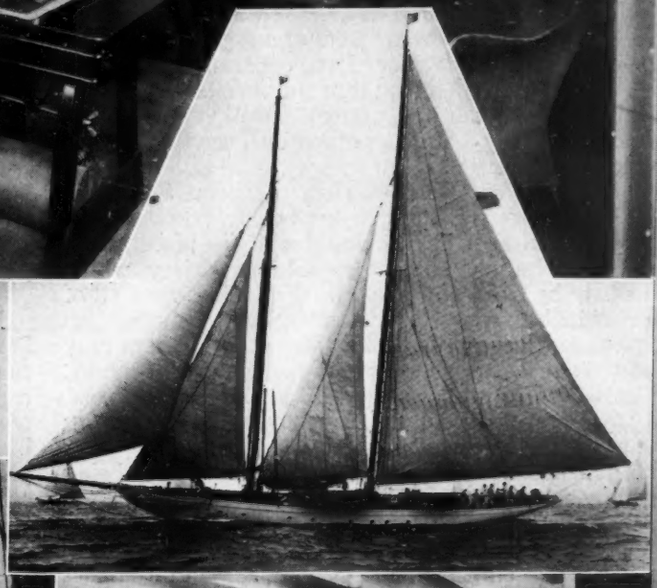
I was mighty glad to see that design by Edson B. Schock in the last issue, of a small auxiliary racer. There is a boat which will get you to and from the race course regardless of lack of a breeze, which can be used for cruising any time at all, and which should cost far less to build than many of the craft turned out under our present measurement rules, the latter being nothing but costly racing toys, worth about one-fifth of their building cost when they're a couple of years old. The Schock-designed craft may not be quite as fast as a rule boat of the same water line length, but she'll be fast enough, a good day sailer and cruiser, and one which will hold her value for many years. Why don't we get up some one-design classes of boats built along these or similar lines?

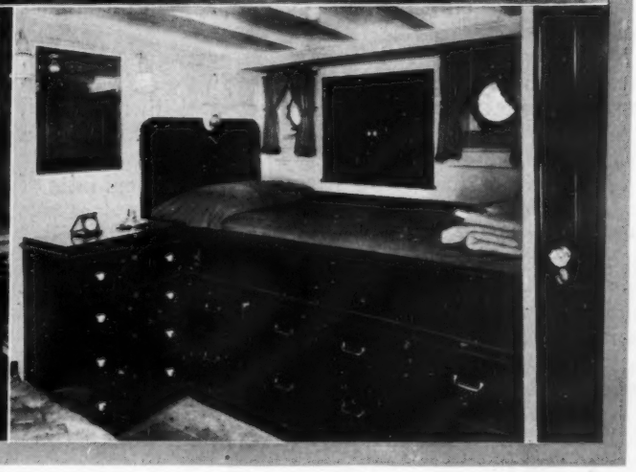
* * *

Following close upon the announcement of the Weems system of navigation comes an article in the daily press describing — more or less — another new system recently perfected by the Navy. Apparently, all we need now is a set of the new, simple tables, an almanac, sextant and chronometer — shoot a heavenly body, look at the chronometer, glance at the tables, and presto! There you are! While any person who can add and subtract can, and always could, learn to be a navigator, still the tyro often had his ambition quickly quenched when faced with the long, tedious formula which he must learn before he could work up a time sight. Any shortening of the process is greatly to be desired, not only to encourage newcomers in the game — and there is a great need for more amateur navigators — but because it simplifies and shortens the work, and thereby reduces the chances for making errors. I hope the new system is soon given full publicity, so that both old and young navigators may get busy with it.

A Cruising Auxiliary With a Staysail Rig

Auxiliary cruising schooner *Micmac*, owned by H. H. Raymond, New York Yacht Club. She is 95 feet long over all and is from designs by Theodore E. Ferris.





Micmac has unusually attractive and well planned accommodations, as these pictures of the main cabin and one of the staterooms show There is also ample deck space. Auxiliary power is furnished by a 6-cylinder Winton gasoline motor.

Books for the Yachtsman's Library

Canoeing, Sailing and Motor Boating

By WARREN H. MILLER

(D. Appleton & Co. 1928. $3.00)

THIS book is for the man or boy who wishes to own a canoe, a sailboat, or a motor boat, but cannot afford to buy one. It is one of these "how to build it" books, and a mighty good one at that.

It is not written for the man who wants a world of style or for the man who wants to shoot from one place on the water to some other place. As the author himself says, it "is for him who would enjoy a more leisurely cruise, look in at strange ports, canoe strange rivers." And Mr. Miller certainly succeeds in his endeavor.

In the first place, when you open the pages of this book their appearance will not cause a feeling of mental fatigue. It has been written in a narrative style that takes the reader along from one craft to another, from the small sailing bateau for the youngster with his first craft, up through dories, and knockabouts; through the mysteries of canoe racing and cruising to the construction and handling of a power boat.

When it comes to the construction of the various craft, the author goes into the necessary amount of detail, but there is never too much. He takes it for granted that the chap who wants to build himself a boat is probably not a trained shipbuilder. For the building of the smaller boats, he believes that the man working on his first effort should have a trained worker take care of the more technical construction. But when the type of boat desired indicates a builder who knows something of the trade, there is ample detail.

What is more, Mr. Miller does not feel that his task is completed when the neophyte has built his craft, but goes on to give simple and readable instructions on how to handle her, and how to care for her.

For the person who wants something that floats, but does not know much about it, the book is excellent. But even more, the somewhat seasoned small boat sailor should be able to pick up some new wrinkles from its pages.

JAMES G. STONE.

Announcing *Deep Water Cruising*

By LT. COM. E. C. MARTIN

(Yachting, Inc., 1928)

WITH the growing interest in offshore cruising and long distance racing, any authoritative discussion on seamanship and on the merits of various types of hulls or the different rigs for seagoing vessels is of value to the present day sailor.

In the latter part of May, 1926, a little cutter, some 56 feet long on deck, and flying the blue yacht ensign at her peak, dropped anchor behind Larchmont breakwater. Unknown on this side of the Atlantic, and unheralded, little did those who saw her arrival realize that she had just completed a voyage of nearly 6,000 miles from Falmouth, England, lasting some 48 days, so immaculate was her appearance. It was our introduction to the *Jolie Brise*, and to her owner, Lieutenant Commander E. G. Martin, O. B. E., Commodore of the Ocean Racing Club.

Few men are better qualified than Commander Martin to write about deep water cruising. Those who know the sea best respect it most, and the conclusions set forth in this book, the result of over 20 years' experience in small vessels, may be read with both interest and profit by that ever growing number who seek the enchantment of the greatest of all sports, deep-sea sailing.

In the book are incorporated for the first time the lines and plans of *Jolie Brise*, and a track chart of her two Transatlantic voyages.

An Ocean Race Across the Bay of Biscay

SO great was the success of the Transatlantic race last year — from New York to Santander — that the Real Club, of Santander, has been encouraged to promote further deep sea races for next season. With this object in view, the Real Club Maritimo has approached the Ocean Racing Club and has asked them to coöperate in the organization of two races from Plymouth to Santander, to be sailed at the conclusion of the British yachting season. The probable date for the start of these races is somewhere about August 26th. This date, I understand, was thought feasible as it will allow any yachts which may have been sailing in the Fastnet Race ample time to recondition before the start of the race across the Bay of Biscay. It was suggested by the Real Club Maritimo that, as was the case in the Transatlantic races last season, there should be two distinct races, one for the big vessels, and the other for vessels, say, of the size eligible for the Fastnet Race. It was further suggested by the Spanish Club that both races should be sailed under the rating rule and time scale of the Ocean Racing Club, as these have proved satisfactory under varying conditions during the last three races over the Fastnet course. In any case, it was the wish of the Real Club Maritimo that all arrangements relating to classification, rating, time allowance, entries, starting arrangements, etc., should be left in the hands of the Ocean Racing Club.

His Majesty, the King of Spain, has offered a cup for the first prize for the larger yachts, and a similar cup will be given for the small class. These cups will, in all probability, be permanent challenge cups, and replicas will be given to the winners in each race. There will also be substantial second and third prizes in each race.

Arrangements for these races have, naturally, not yet been completed but are now being dealt with by the Sailing Committee of the Ocean Racing Club. I understand, however, that the race for the larger vessels will be open to any yacht, of any rig, exceeding 60 feet in length on designed load water line, and that the yachts will be rated by the Ocean Racing Club formula. Assuming that the smaller class is similar to that of the Fastnet Cup Race, it will be open to yachts exceeding 35 feet but not exceeding 60 feet in length on designed load water line. In this class also the yachts will be rated by the Ocean Racing Club measurement rule, which, it will be remembered, differs only slightly from that in use for the New London-Bermuda Race.

It is to be hoped that there will be entries from America for both the Spanish races and also that there may be some British entries that are fit to put up a good fight.

Jolie Brise, now owned by Mr. Robert Somerset, has already been entered for the smaller class, and two large schooners are expected to enter for the 60-foot class. Entries, by the way, should be sent to The Honorary Secretary, The Ocean Racing Club, 35 Albemarle Street, London, W. 1.

M. HECKSTALL-SMITH.

The 28-foot Hacker-designed runabout *Betty*, owned by L. D. Pierce, of the Pennsylvania Petroleum Products Co., which has a long string of victories to her credit in New England waters. Powered with a 200 h.p. Scripps motor.

Of Interest to the Skipper

Scripps-Powered Boat Has Many Records

RACING from Portland, Maine, to Boston, Mass., against the fast "Pine Tree Limited," or cutting through the waves ahead of racing hulls all seem to be a matter of course for *Betty*. She is a 28-foot Hacker stock runabout owned and piloted by Louis D. Pierce, president of the Pennsylvania Petroleum Products Company. Her owner claims for her the record of never having been beaten in her class.

Betty is powered by an H-6, 200 h. p. Scripps motor which has performed commendably under many gruelling races. During the entire season, Empire Marine Oil was used and Mr. Pierce attributes much of his success to the use of this fine marine lubricant.

"Water Thrills" – The Penn Yan Catalog

"Water Thrills," the new Penn Yan catalog, has caught the thrill of boating as well as it can be caught on paper! In it is described the complete line of Penn Yan outboard runabouts and racing hydroplanes, of rowing and sailing dinghies, of canoes and rowboats. You will find small boats for pleasure, for sport, for hunting, in short, for every purpose!

"Water Thrills" will be sent to readers upon request. Address the Penn Yan Boat Company, at Penn Yan, New York.

Opens Show Room in Boston

The Eastern Service Marine Company, a recently organized subsidiary of the Eastern Service Company, has just opened its show rooms and offices at 780 Commonwealth Avenue, Boston. The company announces, also, that it has been appointed New England distributor for the Johnson Motor Company, manufacturers of outboard motors. The Eastern Service Marine Company will give complete service to all Johnson motors, in addition to selling them.

This company acts as distributor for many other well-known products, among them the Staples, Johnson Down East cruisers, Scripps motors, Boyd-Martin and Ludington outboard boats, and Dodge Watercars.

A Fine Move by Chris-Craft

Following in the footsteps of the automobile manufacturers, Chris Smith & Sons Boat Co., of Algonac, Mich., have just issued the first edition of their booklet on the care and operation of Chris-Craft boats, the first of its kind ever prepared by a boat builder. This book is in addition to the booklet issued by the engine maker, and contains full instructions for the upkeep, repair, operation and handling of all models of Chris-Craft, so that the owner will get the fullest measure of satisfactory service from his boat. Charts and illustrations of every part of the Chris-Craft and its equipment are accompanied by detailed instructions for keeping the boat in the pink of condition.

The Matthews adjustable outboard motor bracket for cruisers and auxiliaries.

Bruns-Kimball's New Show Room

The new Bruns-Kimball show room, located on the southeast corner of Fifth Avenue and 15th Street, New York, offers enough floor space for a display of 18 boats.

In the Richardson line there will be the single-cabin and the double-cabin 28-footer, and the 28-foot Day Cruiser Fisherman. In the Matthews display will be 38-footers in the single-cabin, double-cabin, the Sport Cruiser, and the Day Cruiser; the 32-foot Speed Cruiser and the 46-foot double-cabin cruiser. Some of this group are in the open type models, and others in the popular enclosed model. Nine boats, ranging from 24 to 30 feet, open models and sedan, will comprise the Hacker display. A complete line of both Sterling and Kermath motors will be shown, as well as almost 200 rebuilt machines.

The wide range of this display and the attractiveness of the models, as well as of the setting in which they are shown, will make Bruns-Kimball a point of interest to the boatman.

A Valuable Book

The Gray Marine Motor Co., of Detroit, have just issued a new 64-page book which is of distinct value to yachtsmen, no matter what kind of a boat they may be interested in. It might be called the "Book of Boats," for in it are full descriptions and photographs of some 200 craft of all types and sizes, with a description of each, and accompanied with data supplied by the owners regarding the power employed, wheel used, and speed obtained. The data on motors, hulls and wheels is decidedly valuable, especially to the man who is about to power a boat, and who is in doubt as to just what combination of motor and wheel is best for his particular craft. As told in detail in this book, the experience of many boat owners who have solved their problems is the finest collection of data on this subject yet collected. Readers of YACHTING may secure a copy of this book by addressing the Gray Marine Motor Co., 684 Canton Avenue, Detroit, Mich.

TIME
TO PLAN FOR THE *SPRING CLEAN-UP*

Photo by Rosenfeld

VALENTINE'S VALSPAR
The Varnish That Won't Turn White

Cast your weather-eye over this list of able-bodied, sea-goin' finishes! Finer materials have never been made! And you'll meet them wherever you sail—for Valentine Marine Products are the accepted standard all over the World.

Valspar Bronze Bottom Paint—Barnacles and moss simply hate this 100% efficient anti-fouling preparation. Treat your boat to two or three coats, from the hull to the water-line, and she will be just as fast in August as she was in May because the bottom will be as clean as a whistle. The Valspar content makes this remarkable paint tough and elastic, keeping each seam water-tight.

Valspar Aluminum or Gold Paint—For metal work. Anchors, chains, davits, stanchions—all metal work can be made to look permanently new and fresh with this everlasting finish.

Valspar Yacht White (and Black)—For the topsides. A dazzling white or intensely black paint which will not fade in the strongest sunlight. Dirt and scuff-marks are easily scrubbed off without the least damage to the finish. This remarkable Marine paint is used on more boats of all sizes than any other finish on the market.

Valspar Enamels—as durable as Valspar itself. In White, Black and 13 colors. Exceptionally fine for cabin interiors. Used on topsides when an unusually high lustre is desired. Wide range of colors will enable you to keep in line with the new idea of "Color" for boats. Cockpit furniture and deck chairs, can be dressed up and protected permanently with this remarkable enamel.

Valspar Clear Varnish—The most popular varnish in the world. Withstands the elements as no other finish can. For use on all natural wood surfaces.

Valspar Varnish-Stain—Valspar itself with the finest transparent stains added. Eliminates tedious work of staining. With Valspar Varnish-Stain, Varnish and stain is applied with one stroke of the brush. In six shades.

Valspar Porch and Floor Paint—This is a new product of exceptional toughness and durability. Comes in 8 colors and is eminently suitable for canvas-covered cabin roofs, cabin, cockpit, or deck-house floors and decks where a solid color is desired.

* * * *

Most of the leading boat builders and ship yards in the world standardize on Valspar. A few of the builders who use Valspar *exclusively* are:—Horace E. Dodge Boat Works, Chris Smith & Sons Boat Co., Gar Wood, Inc., Old Town Canoe Co., Dart Boats, Inc., Brooks Boat Co., Inc., Hacker Boat Co., Penn Yan Boat Co., Inc.

VALENTINE & COMPANY
386 Fourth Avenue, New York, N. Y.

The 50-foot mahogany Speedway cruiser exhibited at the recent Motor Boat Show, and the new 300 h.p. Speedway Diesel Model D motor, which attracted much attention.

El Doran, owned by H. A. Bird, is a 44-foot West Coast cruiser, powered with a 6-cylinder Kermath driving through a two-to-one reduction gear, an installation which gives the excellent cruising speed of 14 m.p.h.

Consolidated Building Many Boats

With 15 keels on the stocks in various stages of construction, the Consolidated's plant on the Harlem River, New York City, is geared up and running at full capacity. All deliveries are scheduled to be made prior to June 15th.

Two Diesel yachts, each over 100 feet in length, will be among the first to be launched. Twin Speedway Diesels will form the power plants. While the development and manufacture of Diesel machinery by Consolidated is comparatively new, the success of this firm in the building of gasoline engines suggests a noteworthy contribution to the marine field. In addition to these, there are 80-footers, 70-footers and so on down to 21-foot deluxe coupe yacht tenders. It is interesting to note that all yachts under construction will be powered with Speedway engines, either gasoline or Diesel.

In addition to the large building program, extensive fitting out, rebuilding and repair work has been contracted for. To further the repair and fitting out work a new hauling and launching ways has been installed at the northern end of the yard. With this addition four hauling and launching ways will now be at the service of yachtsmen.

Flag Cigarettes

It is quite the thing to have one's private and club flags printed in required colors on one's cigarettes.

Brennig's Own, Inc., 501 Fifth Ave., New York City, who specialize in these cigarettes, report that a growing number of yachtsmen are placing orders for spring delivery.

Brennig's Own flag cigarettes are hand rolled from pure Turkish tobacco. The business is an old established one and among many the use of these cigarettes has become a family tradition.

A New Electric Closet by Sands

Sands craftsmanship has achieved another marked triumph in marine plumbing. This eighty-year old concern, internationally famous for the high quality of its products, has recently brought out an improved electrically operated pump closet that will be of interest to owners of fine boats. It is exceptionally quiet in operation, and the great convenience of the electric power will appeal to all.

This fixture is suitable for installation either above or below the water line, on any boat having a generating set or storage batteries of sufficient capacity. It is furnished with either 32 or 110 volt direct current motor, enclosed in a dust-proof housing, and operating on low amperage. It is beautifully finished in white enamel with nickel plated trimmings, highest grade "Cellu-white" seat and cover, and standard size bowl of vitreous china — a representative Sands product.

Ready for a Big Season

Howard Drakeley, manager of Duplex Marine Engine Oil, has just returned to his Buffalo headquarters after a month in Florida where he was engaged in getting everything in readiness for the winter's rush of motor boat enthusiasts.

Mr. Drakeley reports that although things are quiet on the west coast, on the east coast everything is "all set" for a big season. J. F. Cheney, Duplex distributor for the southern half of the state of Florida, has already disposed of several carloads of Duplex Marine Engine Oil, and all motor boat and outboard owners will find marine supply houses well stocked. One of the items of the Duplex line which has become especially popular in Florida is Kasson Waterproof Grease, Mr. Drakeley reports.

The Duplex Company announces that Mr. Bruce Swaney has been added to the staff as advertising manager. Among Mr. Swaney's duties will be the editing of the "Duplex Dealer," the house organ of the Enterprise Oil Inc., manufacturers of Duplex.

Gar Wood Now on Broadway

Gar Wood has leased spacious show rooms at 1860 Broadway, at 61st Street, in New York City, where he will show his three new models of standard runabouts. *Miss America VII*, the world's fastest boat, powered with two 1000 h. p. Packard motors, was shown to the New York public during the month of January in the Packard Motor Car Company's building which is directly across Broadway from the new display room.

It will be remembered that Gar Wood pioneered in the field of the lighter and more powerful airplane engines for fast boats. Then he designed and built a large number of the fast 33-foot boats and 50-foot express commuters. Later he introduced the sedan top to the stock runabout.

The New York factory branch and show room was opened on February 1st and is in charge of Arthur J. Utz, Eastern Sales Manager for Gar Wood, Inc.

Three Dart Runabouts at the Show

Dart Boats, Inc., exhibited at the New York Motor Boat Show the three types of all mahogany runabouts upon which their building efforts will be concentrated this year. These are the 22½-foot model, powered with a Chrysler Redhead engine; the 26-foot model with a 200 h. p. Kermath; and the 30-foot sedan, with a 200 h. p. Sterling. Many improvements and refinements were evident in these models, although the designs remained basically the same.

Announcement was made that Wilbur Young would handle the distribution of Dart Boats in the Metropolitan and Philadelphia districts, and that Frank Wigglesworth would control the Boston area.

S. Clyde Kyle Shows A. C. F. Cruisers on West Coast

S. Clyde Kyle is opening a display room in the Rialto Building, San Francisco, where there will be exhibited the A. C. F. Cruiser in the 26- and 30-foot models. This new display room will form a very important unit in the S. Clyde Kyle system of distribution.

The Time Payment Plan

Boats are the latest addition to the list of articles which may be bought on the time payment plan. A conservative and workable deferred payment plan to assist yachtsmen, boat builders, dealers and marine engine manufacturers has been developed by the United States Acceptance Corporation, of Philadelphia. This corporation, with the help of a prominent admiralty lawyer of New York City, leading naval architects, brokers and boat manufacturers, after many months of careful investigation, has formed a marine division with Mr. David S. Bechtel as manager.

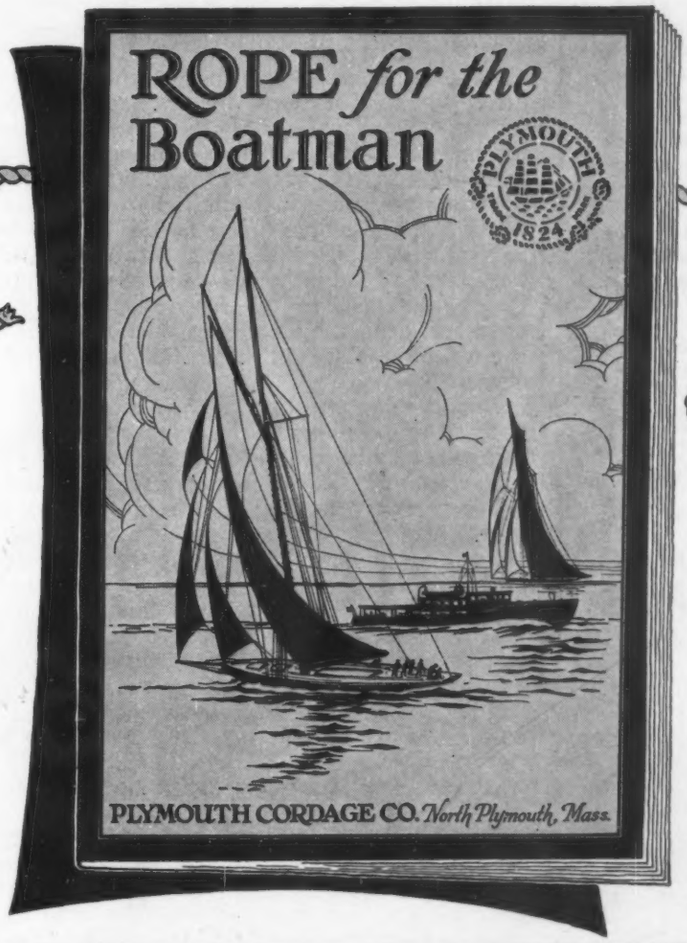
Mr. Bechtel is a naval architect and marine engineer, as well as a yacht broker and marine insurance broker. With his wide experience in both commercial and yachting fields he will be of great value to those interested in increasing their sales through this medium. The plan provides for the financing of new and used boats, of both commercial and pleasure types, and also of new Diesel marine engines.

(*Continued on page 159*)

How's Your Marline-Spike Seamanship?

THE Square Knot? Yes—you can make that. But how about the Midshipman's Hitch—Sheep-shank—Selvagee Strap—and the many other knots, hitches and splices that save boatmen so much time and trouble?

You can quickly learn how to make them all. Just send for our new, illustrated booklet, "Rope for the Boatman." It explains how all the knots, hitches and splices are made and demonstrates by clear photographs each separate one. And it will be mailed to you—



Free

of Cost or Obligation

THERE is also much other information contained in this booklet which will prove of great use and value to every boatman. It tells you what kind and sizes of rope to buy—for moorings—for ground tackle—for running rigging—for general equipment. It explains the proper use and care of rope.

For your convenience, a coupon is printed below. Fill it out and mail it now.

Use this coupon for a free *copy of "Rope for the Boatman."*

Plymouth Cordage Co.
North Plymouth, Mass.

Gentlemen:—Please send me a copy of your book, "Rope for the Boatman."

Name_____

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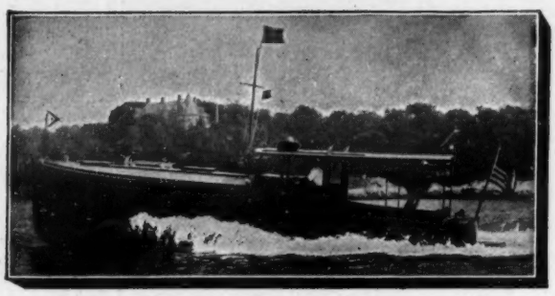
PLYMOUTH ROPE HAS INSURED SEAFARING SAFETY FOR 105 YEARS

PLYMOUTH CORDAGE COMPANY
North Plymouth **Massachusetts**

A FAST CRUISER FOR RUGGED WATER



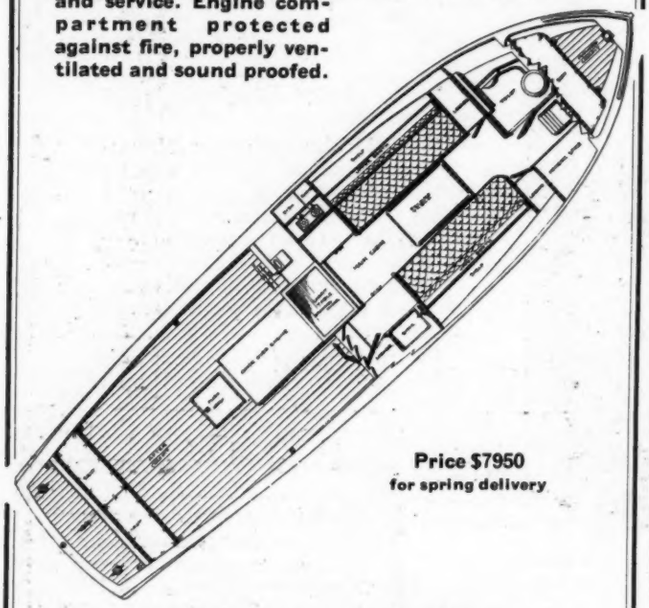
FAST — YET SEAWORTHY — THE BEST IN CONSTRUCTION — YET MODERATE IN COST

YACHTSMEN who know boats are demanding speed without sacrificing safety, two characteristics hard to obtain without losing one or the other. But in this 34′ overall cruiser, you will find both. You can cruise all day long at 21 m.p.h. and take the weather as it comes, blow high, blow low. Your surety of design lies in the fast and safe passages made by Alden boats to many corners of the world.

Following long established methods of yacht construction, they are built only as custom boats are built, to withstand the buffeting of years of long cruising.

Cabin provides comfortable accommodations for four persons, with toilet, galley and large locker space. Fore and aft cockpits with large seating capacity. All openings screened and important details carefully developed.

Powered with a Sterling 200 h.p. engine, thus assuring you the best in mechanical performance and service. Engine compartment protected against fire, properly ventilated and sound proofed.



Price $7950
for spring delivery

JOHN G. ALDEN
Naval Architect · Yacht Broker
148 State Street Boston, Mass.

The French Motor Boat Show

(*Continued from page 71*)

largest, consisting of a nearly full-sized model of the fore deck and bridge of a French destroyer, was fitted even to the anti-aircraft guns, winches, telegraphs, etc., and had a steady stream of visitors. The next in interest was one of the new motor-driven lifeboats, driven by twin screws working in tunnels, which was on its own launching cradle and complete with all gear. Much be-medalled guards looked after the crowds around this boat, and the Life Savers' Aid Society reaped a harvest in their donation boxes. The motor boat club showed *Sadi VI* and another less known racer, both beautifully built hulls.

The outstanding cruisers were two luxuriously fitted ones by Despujols and Jouet. They were both upholstered to catch the eye, and adorned with a great deal of shining gear, some of which looked none too strong for service. The Despujols craft was Scripps-powered. On the same stand the same firm had a nice looking runabout powered with a Chrysler marine motor.

Outboard motors and boats were all over the place. All the American outboard motors were shown, and they appeared distinctly superior to the French motors of the same type. Outboard boats of all types were to be seen, from the smallest and lightest step hydroplane to a small raised deck cruiser. If numbers are a fair indication, I should judge that French lakes and rivers would see flocks of skimmers during the coming season.

Motors there were, of all sorts, both gasoline and heavy oil, and in all sizes. With rare exceptions, they were not fitted with self-starters, and except for those intended for heavy workboats, did not impress one as well adapted for marine use. The heavy motors looked to be very capable, but were generally large and clumsy, and hardly suited for yacht use. Renault had a small heavy oil engine which seemed to have possibilities if the claims of its makers were realized. Sulzer had two beautiful models of very large Diesel motors. One of these, about three feet long, was turned by an electric motor to show how it operated, even the auxiliaries working. This was one of the most complete and beautifully made models I have ever seen.

Bolinders, in addition to their motors, showed one of their adjustable-blade propellers for the crowd to digest. It was a very rugged outfit, and in view of Henry Howard's account of its use in his ketch *Alice*, and comments in YACHTING regarding the desirability for some such device in America, I examined it with care and manipulated it a number of times. The double shaft requires a fairly thick deadwood, but the ability to adjust the pitch of the blades at will certainly seems to be an advantage. Its "out" seems to be the length of time required to go from ahead to astern, as it requires many turns of the adjusting wheel to make the maneuver, and this limits its suitability for yacht use, though of course it was not designed for this purpose.

The galleries of the Grand Palais were given over to accessories and general sporting outfits, many of them most interesting, especially the aquariums with fish from French waters. The grass and weed cutting boats shown on one side of the building seemed plain and serviceable. These flat scows were driven by stern paddle wheels, their cutting apparatus being hung over the bow for cutting either vertically or horizontally. The belt drive used, however, would probably fail when water began to fly, but with a chain drive and slip clutch, would be interesting to many who are bothered by weeds on our inland waters.

Among the accessories, an exhibit by Desmarguay, of life preservers and cushions of rubber, looked very good. These had an interior of blown rubber similar to a rubber sponge, but with the outer surfaces vulcanized smooth.

Back in '85

So far away it sounds like you were speaking of days when the Indians were treking out of the wilds of Massachusetts... that's when Consolidated's yards were established... when the first self-propelled gasoline pleasure boat was built.

Since that time Consolidated Shipbuilding Corporation has contributed in full measure to the wonderful progress made in providing America with the means to enjoy to the fullest extent all that "water sports" imply.

Consolidated Craft, from ocean going Yachts and fine Cruisers to the serviceable Tender, are in every harbor where the elite foregather—and these unfailingly add to the fine art of living well—and luxuriously.

MOTOR YACHTS PLAYBOATS
CRUISERS COMMUTERS
RUNABOUTS TENDERS
SPEEDWAY ENGINES – GASOLINE AND DIESEL

CONSOLIDATED
SHIPBUILDING CORPORATION
MORRIS HEIGHTS · NEW YORK

Our plant is virtually a permanent Motor Boat Show—if you are interested in watercraft you will enjoy inspecting it.

We invite consultations — ask us for suggestions or literature concerning any type of pleasure boat.

By Appointment to H. M. King George V

By Appointment to H. R. H. the Prince of Wales

London or New York

Whether tailored here or in London, clothes by Weatherill bear that unmistakable hall mark of England which only masters of the British tailoring art can achieve.

Business Suits $115.00

PORTFOLIO OF EXCLUSIVE ENGLISH STYLES ON REQUEST

Bernard Weatherill INC.

Civil and Sporting Tailors

557 Fifth Avenue ~ New York, N. Y.

Only branch in the U. S. of Bernard Weatherill, Ltd., of London Royal Warrant Holders

If they would stand up under the standard life preserver test they should prove a real hit. They are very light and springy, and seemed adaptable to a number of uses. There was another exhibit such as I have never seen on this side, namely, that of Honore Victor, who displayed sections of cabins with full sized folding berths, and upholstery and cabin fittings. These, with various samples of material, gave one a good idea of what could be done, and deserved more attention than they seemed to receive.

Taken as a whole, the exhibition reflected great credit on its promoters, and showed the marked progress being made by the French in yachting. There were very few freaks, and if most of the boats were not of a particularly rugged type, they were, perhaps, strong enough, inasmuch as the greater part of French yachting is done on lakes and rivers, and requires a less seaworthy outfit than those in which we specialize. A continuance of such shows cannot fail to have a far-reaching educational effect on the growing desire for aquatic sport in our sister republic.

Ground Tackle

(*Continued from page 77*)

the transmission losses are less, and satisfactory braking arrangements can be provided either by means of cone clutches or of band brakes. The ideal plan is one in which both cables can be worked independently, so that one may be veered while the other is hove in. This can sometimes be arranged in craft where old-fashioned bowsprit or windlass bitts are fitted. In these vessels the handles are generally at a very good working height. In small modern vessels the height is often so small that a man cannot exert his strength to advantage.

Capstans may be neater in appearance than windlasses, but they are generally very heavy, and the windlass scores in that it can be secured to the deck at widely separated points, whereas a capstan depends entirely upon the rigidity of its big central spine. There are very few capstans in which the spindle will not give under a very heavy load, so that the barrel comes to bear upon the baseplate, which makes the work doubly hard. In small craft the greater part of the cable can generally be got by hand, and a "ratchet winch" (Sketch 10) fitted with a fairly long handle will give great power for breaking out the anchor. Sometimes a mast winch is used, and works well with the vertical chain locker described earlier; but unless the mast and mast partners are exceptionally strong it seems better to take the strains upon deck beams and carlins.

Claw buffers, working on the principle of a mainsheet buffer, are invaluable, and a most satisfactory method of arranging a windlass, bollards and buffers is shown (Sketch 11). When riding very heavily, and especially when veering chain in a gale of wind, it is much safer to use bollards than to trust to gipsy wheels and brakes. Should a shackle happen to come on the gipsy when a heavy strain is upon the cable the chances are that the cable will jump and run out to a clinch. With the claw buffers and bollards, when enough cable is out the claw is raised under the links and held there while a few more inches of cable is veered until the claw grips. The cable can then be taken off the gipsy and turned up on the bollard, allowing enough slack between the bollard and the claw for the buffer to come into action. The part leading from the bollard to the gipsy must always be left on top. Occasionally, if there is much slack chain on deck one sees the turns put on the other way, which may lead to trouble. A fitting which one sometimes sees in small yachts is a roller or snatch block upon the bowsprit (Sketch 12). It has the advantage of keeping the chain and anchor clear of the bow, but it is not desirable to put the strain upon the bowsprit when riding heavily, nor convenient to have an anchor slung in such a position unless it is light enough to be lifted by one hand.

The Duke of

Westminster

— Uses —

KERMATH

The Duke of Westminster's famous twenty-six-foot runabout — one of the smartest boats in the British Isles — is equipped with a Kermath 150.

The distinction which Kermath ownership involves is the distinction which invariably follows the man of unerring discrimination about whose choice there can be no element of uncertainty or doubt.

The new Kermath catalog will prove of interest to you. It covers the entire line of 15 fine models. Write for your copy today.

"A Kermath Always Runs"

3 to 200 h.p. ***$135 to $2300***

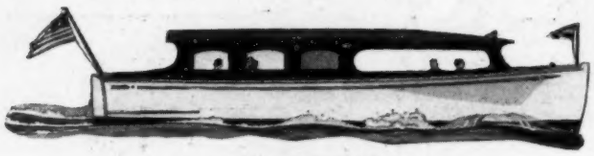
KERMATH MANUFACTURING COMPANY

5893 Commonwealth Avenue, Detroit, Michigan **90 King Street W., Toronto, Ontario**

New York Show Rooms **— Fifth Avenue and 15th Street**

STAPLES JOHNSON *Quality Cruisers Feature:*

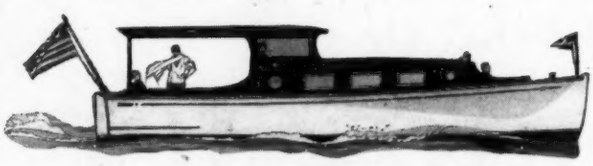
SPEED



THE NEWPORT

A 34′ Cruiser DeLuxe, powered with 200 H.P. Kermath. Speed 25 miles. Berths for two. The ideal commuter. Price $7,500.

STURDINESS



THE MARBLEHEAD

A 34′ cruiser of outstanding seaworthiness. Upper and lower berths. Price with 6 cylinder 72 H.P. Gray, speed 13 miles, $5,900; with 6 cylinder 65 H.P. Kermath, speed 14 miles, $6,450. Other engine equipment optional.

COMFORT

THE MAINE

A 40′ two cabin cruiser completely equipped, including Lux Fire Extinguishing Unit. Powered with 200 H.P. Kermath. Speed 17 miles. Price $10,750.

All these cruisers are in stock. Interesting literature describing these boats in detail will be sent upon request. Write today.

STAPLES, JOHNSON & CO.
Biddeford, Maine
"IT COSTS LESS TO BUILD GOOD BOATS IN MAINE"

Southward in Summertime

(*Continued from page 70*)

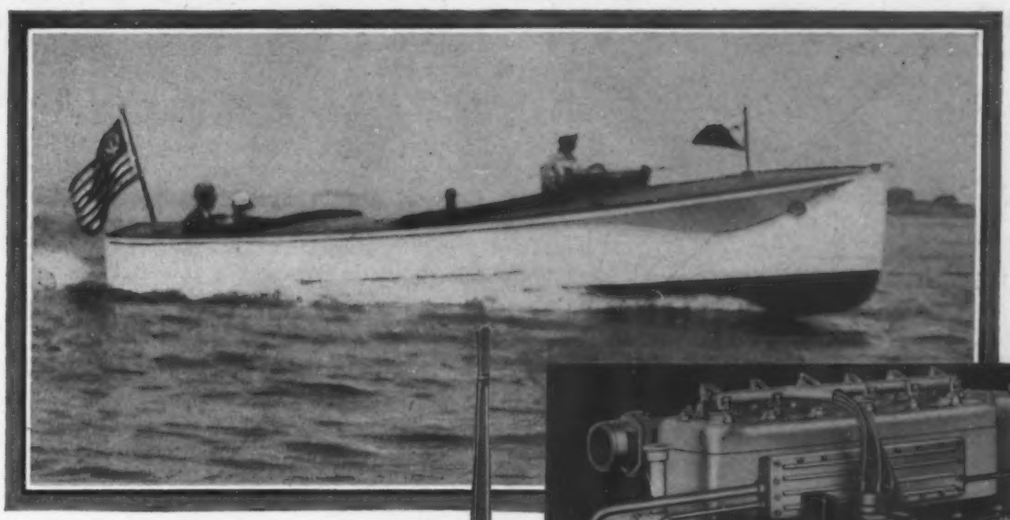
chronometer was allowed to take its place. For two days Arlington time came in; the chronometer gained one second the first day, and lost six the next! Then the radio went "dud" the first day in the Gulf Stream, and thenceforward no time was secured.

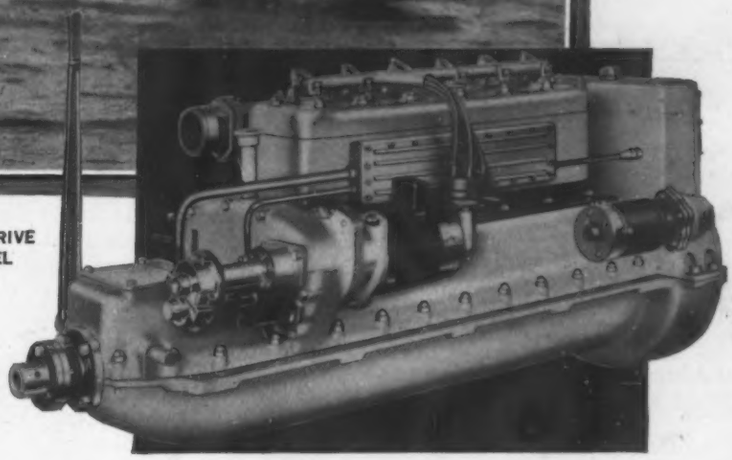
Everything was done to get the set working; but only once was Arlington heard, faintly, and it faded before the tick. So as the schooner made her westing, the reckoning became a ticklish problem. A landfall was not looked for anywhere but on Elbow Cay, Abaco, and a glance at the chart will show the vital necessity of accurate longitude. The 2.5 second rate was adhered to, simply because there was no other available basis for reckoning. But, to be on the safe side, land was looked for two days before it was expected. More about this chronometer later. Its history would interest any navigator.

Then there were the usual log troubles. Gulf weed. On an average, the log registered about four miles for every ten sailed; but this is a trouble that is always apparent and easily taken care of by any competent navigator; it is not like the insidious and undetectable error of an erratic timepiece. When the log fouled, it was taken in and cleared, and if it fouled again was kept aboard, and the approximate speed ascertained by either stepping off along the deck, keeping pace with something thrown overboard alongside, and timing the distance stepped; or by the simpler method of marking a definite distance on the rails — we used 40 feet — and timing the passage of some floating object between those marks. This was done, not every watch, but every time the helmsman noticed a distinct change of speed. It worked out about as accurately as the patent log.

June 30th a fine big Lunenburg schooner came along, bound north. She was under power, awnings set, only the foresail up, and her decks crammed with gasoline drums. A fisherman or salt carrier could scarcely pay for that amount of fuel while there is a wind to blow. Wonder what she was so deeply laden with? She was on a direct course between Nassau and Cape Cod. Whatever she carried, she gave the skipper a welcome check on his longitude. A line drawn from Elbow Cay to Cape Cod, or the tip of Nova Scotia, ran right through her, and us. Allowing, of course, a bit for doubt as to her real destination, but not too much, since there was not that much doubt, she gave us a line of position which served to assure the navigator that, whatever the faulty chronometer might be doing, he at least was not roaming giddily over the ocean. Here it might be remarked that *Gauntlet* has found her way to a good many strange ports navigated by a pocket watch alone, without aid of radio. In both the Bermuda Races in which she sailed she was navigated entirely by pocket watch, without radio, and never failed, going or coming, to pick up North Rock or Montauk Point right over the spike-end. In several other passages, between Bermuda and Nova Scotia, Nova Scotia and Barbados, Barbados to Turks Island, Turks Island to Newfoundland, and others as well, the same pocket watch was found to match up with a chronometer so well that it was often depended upon in preference to the much more expensive timepiece. On one passage of seven days, Halifax to Provincetown, the ship was navigated without sights at all until the Monument was sighted. Then, the sun being right, 2 A.M. sights were taken, timed by watch and chronometer separately. This was done simply out of curiosity, since the landfall was made accurately. And both watch and chronometer placed the ship within a circle of a half-mile diameter, the center of which was the dead reckoning position.

But do not take this as a proof that your pocket watch will save you the cost of a radio or chronometer. Fifteen





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"Never the Slightest Bit of Trouble"

Freedom from trouble, absolute reliability under any and all conditions—these are *the* things that you look for in a marine motor.

And they are *the* qualities that you get in any Universal Motor, whether it be the little single cylinder or the big, new Eight—110. Commodore Welch put his Universal Sixes to some real tests last summer up and down the New England Coast, and what he says about them has been virtually duplicated by other enthusiastic Universal owners all over the world.

And with their remarkable reliability, Universals can be relied upon for brilliant performance. Although Commodore Welch's boat is of the round bottom type, designed primarily for comfort and seaworthiness, his Universal Sixes (a true twin installation) developed an easy, hour after hour speed of twenty-eight to thirty miles an hour.

Description of each of the new Universal models is yours for the asking.

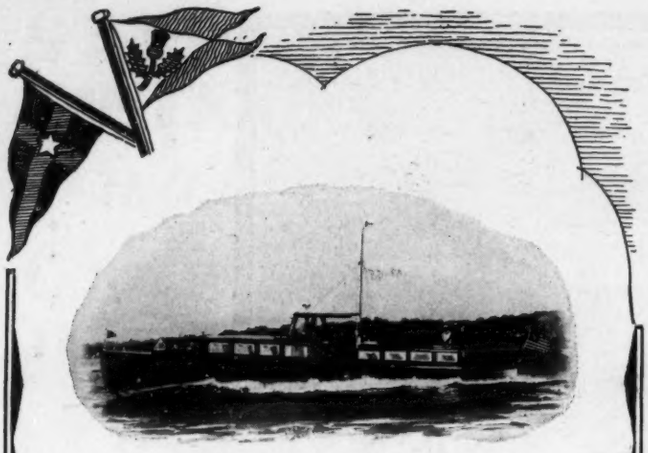
NOT CONNECTED WITH ANY OTHER FIRM USING THE NAME "UNIVERSAL"

Universal

1 + 4 + 6 + 8 *CYLINDER*

marine MOTORS

UNIVERSAL MOTOR COMPANY Dept. Y-3 Oshkosh, Wisconsin

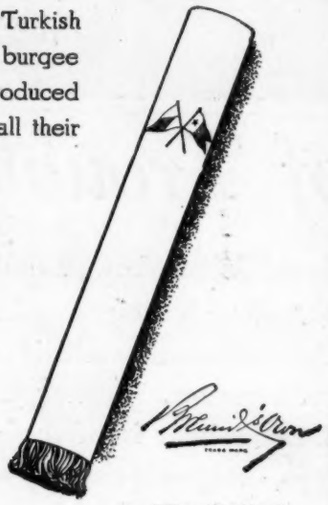


BRENNIG'S OWN Flag Cigarettes

On board "Manchonoch II"
Owner, Clarence H. Mackay, Esq.

BRENNIG'S OWN Flag Cigarettes

A mild blend of pure Turkish tobacco. Your club burgee and private signal reproduced on each cigarette in all their colors.



"The original brush end cigarette"

The same flags, in colors, on book matches

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ASTOR TRUST BUILDING
501 Fifth Ave. New York

years ago my watch cost $35. It is probably like the proverbial razor. One in a thousand is a marvel. But get your chronometer from a chronometer firm, not from a mere watch assembler.

From noon June 30th to noon of July 1st there were 24 hours of dark and ominous doings. Elbow Cay was expected to pop up over the horizon at any time after noon of the 1st, if the weather held up. But as soon as noon sights were secured on the 30th, the sun was drowned, and all that afternoon and night there were thunder squalls with terrific lightning, rain that simply blinded the helmsman and made it impossible to see the compass, and windy busters that came from nine directions in one carefully noted hour. All night, and until 8 o'clock on the morning of July 1st, the schooner fought to hold her position. The net result was chaos, insofar as any notion of position was concerned. Blinded by the savage rain and wind, not to mention lightning which actually left a smell, it was so near, all a poor helmsman could do was hold the wind on a cheek or some other part of his face, and let the schooner run. Had the wind kept steady with its force, the skipper would have hove her to; but since the wind played "ring around the rosy," and she made no great distance towards any given point, hope was fanned alive that at any minute the skies would clear and let her lay her course. In a good many years of deepwater voyaging, the skipper never remembers seeing wind act so crazily. It backed and veered, hauled and blew, and squalls came from several different quarters at once, one striking down only a few minutes before another. The barometer remained between the readings 29.92, 29.98 throughout the duration of the squalls. And in the brief intervals the night was brilliant with stars, while the breeze seemed as if it had never varied from a fresh fair wind blowing ever towards Abaco.

There was bright weather, a smooth sea, and a faint, fair wind as soon as the morning sight was taken on the 1st. After the hurly-burly of the preceding 20 hours there was much conjecture regarding position. It was assumed that the chronometer had kept within a reasonable distance of the average rate; lumping the total loss for 15 days, and averaging it at 2.5 seconds daily, that was taken as being at least within a fathom or two of correct. Any navigator, of course, will know that such a timepiece as this is utterly useless, worse than useless, for navigation; the galley clock would do better; but if it's all one has, one must make the best of it. As said before, land was looked for two days before expected. Nobody in these days wants to revert to the methods of Magellan, running the latitudes down, unless absolutely forced to. With any kind of a timekeeper this navigator prefers to strike an average and keep a good lookout.

The sights crossed with a noon latitude, and at two checked again, placing the vessel within shouting distance of Elbow Cay — if the chronometer were within reason at all. But no Elbow Cay hove in sight. There was visibility enough to make the land at 15 miles. If at night, that 15-mile light ought to be spotted in the skies at 20 miles. Through a placid night no light stabbed the sky. Squalls in the morning watch made the going ticklish, but they blew consistently from the right quarter for progress; and in midforenoon the weather cleared again. A shot of a star just at dawn twilight, a sun shot at 7 A.M., and another at 9 all crossed to put the ship right in the middle of Abaco. Certainly, this chronometer was a piece of junk, if no worse. At noon, deciding at last to make the latitude and run it down, a good meridian altitude was secured; applying it instantaneously to a prepared quantity, the latitude was obtained, right squarely on the line of Elbow Cay. Damn that chronometer! Then the skipper, swinging to the westward and getting a second index error by the horizon — it is his habit to do this before

(*Continued on page 118*)

Good Bye! • Noisy Exhaust

(73)

Most Lockwood Dealers are now in position to extend convenient Time Payments.

For 1929 Lockwood offers a remarkable new feature in an Outboard Motor, "Silenced Exhaust without any loss of Power." Think what that can mean to you. Think how greatly it will add to the enjoyment of every hour you spend on the water. You can ride along at racing speed with the throttle wide open, and all the while you have that comfortable feeling that there are no deafening exhaust noises to annoy either the fishermen, summer cottagers or your friends in the boat.

To really appreciate how much more recreation and pleasure you, yourself will get from this latest Lockwood improvement, you must get into a boat powered with the new—

LOCKWOOD "SILENT CHIEF"

Here is a Class B Motor with a remarkable record for speed and power. Ten times out of twelve, the highest racing honors for its class have been won decisively. Time and again it has matched its prowess against much larger motors and covered itself with glory. Now for 1929 without sacrificing one whit of its power and speed, we bring you the most wanted improvement in Outboard Motors—"Water-Sealed Exhaust." Other new features include—Extended Automatic Oiling, Protected Gasoline Gauge, Improved Carburetor and new Convenient Control.

Silenced Exhaust *-without ANY Loss of Power*

Three Other Great Motors

The "Racing Chief"

A Class B Motor that will, we predict, crowd the coveted 40-mile mark. A real racing job with dual carburetion and fresh oil lubrication.

The "Ace"

Holder of all 1928 Class A Official Records. Weighs only 50 lbs. Develops about 7 H. P. The ideal Light Motor.

The "Flying Four"

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All Have the "Lockwood Famous Pilot"

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Syco Supply Co., 230 Bay St., Toronto, Ont. Fred I. Mitchell, 1203 Notre Dame St., East, Montreal, Que.

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Oberdorfer MASTER

Automatic Electric

BILGE PUMP

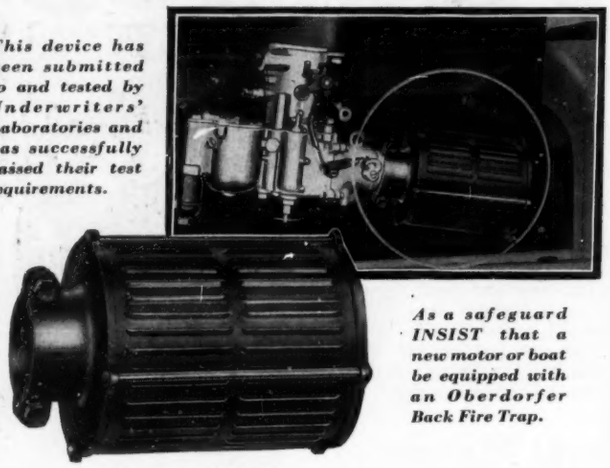
In 6, 12, 32 and 110 volt Units

Patents Applied For

YOU need never worry about your boat swamping or sinking with an OBERDORFER MASTER BILGE PUMP on board. This powerful little pumping outfit maintains a constant watch over rising bilge water. Built for long service and heavy duty. Made of non-corrosive bronze. Automatic or constant action as desired. Low current consumption.

Oberdorfer BACK FIRE TRAP

This device has been submitted to and tested by Underwriters' Laboratories and has successfully passed their test requirements.



As a safeguard INSIST that a new motor or boat be equipped with an Oberdorfer Back Fire Trap.

Patents Applied For

The Oberdorfer Back Fire Trap brings new safety to motor boating. It renders harmless the cause of nearly all fires on boats — *backfiring of motor*. Constructed of heavy gauge brass and cast bronze, it is not affected by salt air and will resist the most powerful backfire, breaking up the force of the explosion and cooling its heat so that even gasoline vapor cannot be ignited by it. Made in two sizes.

M. L. OBERDORFER BRASS CO.
2206 Thompson Road · Syracuse, New York

Oberdorfer Pumps

Southward in Summertime

(*Continued from page 114*)

and after a sight — got a foreign substance in his telescope . . .

"Land ho!" There was Elbow Cay due west, 12 miles off, and so far as dependence on faulty timepieces was concerned, the passage was finished. But later, in Nassau, when the navigating officer of the Imperial Lighthouse tender placed this chronometer alongside seven others for rating, and got a week's result of: gained 8 seconds; lost 2.5 seconds; lost 4 seconds; gained 3 seconds; lost 5 seconds; gained 12 seconds; gained 1 second — it is not hard to see why the landfall was not made on schedule; nor is it very difficult to understand why that navigating officer just let the "critter" run down and reported to the owner that it was a mad timepiece and only a madman would go to sea with it!

Oh, well! The cruise was about up. Long since the gasoline supply had been reduced to one emergency drum. Gid heroically "siphooned" that into the service tank, and the motor was given its immortal chance. No wind. Nassau only 90 miles away; 45 miles of motor drive left in tank; calm! No place like a calm to ask the motor the big question. You *know* it's calm there; it *may* not be calm when the motor stops. Let her go!

Small breeze all afternoon and night. Stopping the machine whenever a breath blew. Starting her up when the breath died. Hoping for enough fuel, or daylight, to make a harbor not entered since 30 years before. And then at 8 P.M., of July 3rd, the faint twinkle of Nassau's silly little light. Couldn't be picked out from all the shore lights until the surf on Hog Island was heard. (While this is being written, the new revolving light on top of the new water tower is put in operation. That's a light worthy of the port.)

Ten o'clock, July 3rd, P.M., crossed the bar. Ten-thirty, the New Colonial Hotel looms up like a sullen boil against a sky already brightening to the moon. Chart says 12 feet. Lead says 12 feet. *Gauntlet* draws 8, and the motor is coughing on its last dregs of gas.

"All ready for'ard?"

"All ready!"

"How does that next buoy bear?"

"Broad on port bow, skipper."

Not a ripple on the harbor. Not a sound except a Ford horn on the bay shore. And a dog. Two dogs. A million dogs! Thank Old Neptune for the water in between!

"Let go!"

The starboard anchor crashes down, the old schooner swings to the stream, there is a silent communion of ten minutes in which many things are thought; then a night's rest, never broken until the pilot comes alongside at 7 A.M., to try to earn a bit of the pilotage fee he missed last night by taking the schooner up the harbor into a snugger berth.

The boys see their first palms; the skipper goes thoughtfully ashore.

And that chronometer? Oh, it had just doubled its rate in 14 days, that's all!

Heigh-ho!

Emulating Columbus

(*Continued from page 66*)

ball into 'Junky' Fleischmann's basin after first swimming a line ashore because we had no dink; how, the next week, we started for the races and they closed the bridge in our faces because the wind failed and we were five minutes late; how we tied up to the bridge, saw the start of the race, and made whoopee afterward, would make altogether another story."

EMPIRE

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POWERED WITH
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IN HER CLASS
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EXCLUSIVELY
IN ALL RACES

RACE AGAINST

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BOSTON TO PORTLAND

JULY 19TH, 1928

WON BY

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THE *ONLY* BOAT WHICH FINISHED *WITHOUT ADDING OIL* DURING THE RACE
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PENNSYLVANIA PETROLEUM PRODUCTS CO. INC., PROVIDENCE, RHODE ISLAND

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NEW BATH TOWEL
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NEW quality . . . definitely the finest, the softest towelling Mosse has ever presented.

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Provide Llama Bath Towels for your guests and invite their compliments to a perfect host.

Bath Towels, 29 x 50″, doz.	**$36.00**
Face Cloths, doz.	**3.50**
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BATH SETS
Monogrammed
Six bath towels — six face cloths, one bath mat
$37.50

GUEST SETS
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$16.75

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INCORPORATED
730 FIFTH AVE.
NEW YORK, N. Y.
SAN FRANCISCO STORE AT 478 POST STREET

May The Best Rule Win!

(*Continued from page 60*)

ignoring length as a factor. If into the fire, the R. C. Y. C. is at least out of the frying pan, and it has challenged the Rochester Yacht Club for the Canada's Cup, held by the latter since 1907, suggesting Ten-Metre International Rule yachts as the contestants.

The point of objection to the Universal Rule development was particularly noticeable in the international racers built to Class R. *Swamba*, the R. C. Y. C.'s first "R" boat, built in 1910, rated 20 feet and measured 20 feet on the water line and 35 feet over all. "R" boats grew to 27 feet water line and 40 feet over all and still rated only 20 feet. The Lake Yacht Racing Association, formed of clubs from all over Lake Ontario and including Lake Erie, has been faced with the same problem, and has gone so far as to break up into two sections the great fleet of Class R yachts on Lake Ontario which presents the anomaly of 27-foot water line yachts rating as no larger than 20-foot water line yachts. For L. Y. R. A. regattas Class R is divided into Section A and Section B, with owners of yachts in Section B retaining the privilege, through their clubs, of moving into Section A, if they desire to compete for the Lipton Cup. Looking over the list as divided, salt water yachtsmen will recognize many flyers of yesteryear on the coast. The classification is not based entirely on length or age, past performance having a proportion of weight.

Section A: *Acadia; Barbara; Diana* (ex-*Kathea I*, ex-*Hayseed VII*); *Eleanor; Kathea II* (ex-*Dandelion*); *Momiji; Safara; Scorpion; Shadow; Thalatta; Vitesse.*

Section B: *Chiryia III; Huskie II; Lillian E.; Mouette; Mybar; Nayada; Nirwana; Rogue; Secret; Spry; Vivia II; Wenonah.*

As I started out to say, may the best rule for equalizing the chances of every yacht win, and may this contribution of experience help.

Postscript's Winter Cruise

(*Continued from page 56*)

ments had taken charge, and in a moment we found ourselves clinging to the steeply inclined deck while sheets of spray flew over us and the seas lifted us further and further shoreward — or towards whatever that dim dark streak was.

Lying on her side, *Postscript* drew less water and moved forward steadily; we cleared an anchor and let it go, only to take it up again when a faint hope that we had struck an outlying shoal and not the shore line seemed strengthened by a glimpse of deeper water in the darkness ahead. So the smothered staysail went up again; we made it draw, made it pull, and wished it were twice as big. Once more we started forward, bumping along on each wave, and sailing her for all we were worth, on her bilge. An inch at a time, and brutal treatment for a less heavily built boat, but progress anyway — and a harmless tapping for *Postscript*. Over the shoal and into slightly deeper water we forced her. Would she straighten up and sail on her way, free again, as soon as that dim streak was reached? Alas, she would not, for that was the shore line and we were only sailing her high and dry, forcing her onward, an unwilling victim of our carelessness.

The last ray of hope vanished and we finally ceased going forward, while on both sides and astern the waves rushed up in little frenzies on the beach, and threw spray all over us. For some time we crouched grimly on deck, straining our eyes to pierce the darkness. We wondered just what fate we had brought upon *Postscript* now.

And then, as quickly as things had begun to happen,

Let the wet spray fly . . .

At the wheel of a CORSAIR . . . with a bone in 'er teeth and a broad wake trailing aft . . . riding gallantly into dim horizons . . . Plot the path of pleasure on your chart . . . and let 'er rip!

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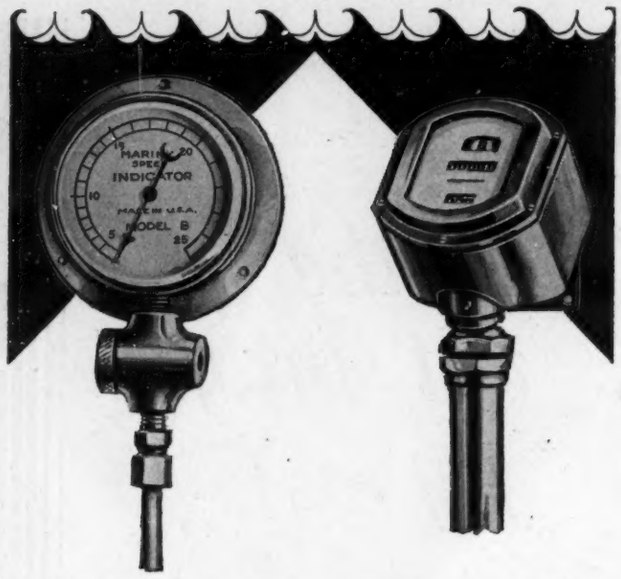

A Marine Speed Indicator and Log

These speed indicators tell you at a glance how fast you are running—they are accurate within 2%. They will show you, if you wish it, your trip mileage, and the total elapsed mileage also.

When navigating by chart and compass a speed indicator is an invaluable aid; and at all times it enables you to hold your boat at her best running speed. The dial can be placed anywhere most convenient for you.

These devices have been fully tested and proved to be dependable gauges. They are giving valuable service to owners of small and large boats of all types.

Passage of boat through the water creates the pressure which is indicated on the dials. There is no connection with the motive power, nor is towage of auxiliary apparatus required.

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4 Models, $25.00, $30.00, $35.00, $40.00, for speeds up to 15, 25, 35, 60 M. P. H.

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2 Models, $100.00 and $120.00, for speeds up to 35 and 60 M. P. H., and trip as well as total mileage.

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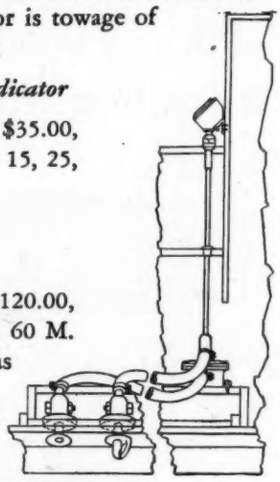


The National Lock Washer Co.
Newark, New Jersey, U. S. A.

they ceased. The waves no longer reached us with any force; the spray ceased to fly; the wind alone continued the attack, howling dismally through our rigging. We were high and dry and beyond the reach of harm. So we turned in and slept — not a troubled sleep, nor a sleep made fitful by our angle of heel, but a solid, unbroken sleep that carried everything into oblivion, save a dim recollection that there would be breakfast to cook in the morning and some plans to be made for hauling off at the next tide.

The following afternoon we winched off about 200 feet into a bight of deeper water where we could float comfortably at half tide, but where we would surely pound on the bottom as the tide fell. We did not welcome a night spent there. The wind had been blowing over 40 miles an hour directly onshore during the day but had lightened enough so that we thought we might sail out of the bight and into clear water. It was worth trying, though failure meant that we would have all our work to do over again if she drove back on the beach again — which was just what happened. Almost clear, the stern hit bottom and checked headway, the bow paid off, and in another moment we were just as we had been when we first came ashore. So we turned in for our second sleep on our side, and were undisturbed except for a short period of moderate pounding at high tide and for the icy procedure of carrying off an anchor at midnight in anticipation of the next day's activities.

But we were destined to lead an easier and more successful life the following day, for *Postscript* was sighted by a coast guard patrol boat, and before dusk we had been towed clear through the combined efforts of 14 men, two 75-foot boats, and a thousand feet of hawser — assistance more appreciated than deserved!

(*To be continued*)

Another Bugis Sailing Craft

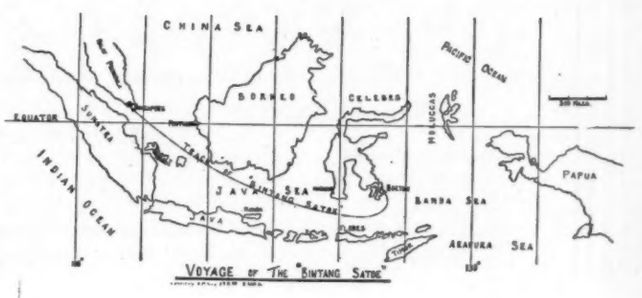
(*Continued from page 73*)

and much given to "running amuck," although I am thankful to say I saw nothing of the latter whilst armed only with tape-line and camera.

The Bugis Prau which come to Singapore today are all ketch-rigged with gaff sails of cloth, but five and twenty years ago a number carried two large lug sails of matting.

As will be gathered from the photographs, the Prau was so cluttered with gear that it was difficult to pick out essentials from parts that count but little in the construction of the boat. The writer, therefore, asks for clemency, as ofttimes particulars were taken in the semi-darkness and the heat of a tropical evening, betwixt unloading and loading

At any rate, I hope this strange craft will interest not only yachtsmen but the public generally. Even in these days of rapid transit by air, sea and land, strange craft do still plough the seas of the East in shapes akin to those of the time when the *Mayflower* sailed into the West.



Kind of Boating Satisfaction
BUILT INTO THESE *New*
HACKERCRAFT MODELS

YOU'LL like the new features embodied in the 1929 Hackercraft series. Beauty of the vigorous, dashing kind. . .Riding cockpits of the airplane type, upholstered in genuine Spanish leather . . . Deep cushioned spring seats for long effortless driving . . . Fully equipped instrument panel and automobile controls . . . Ultra smart deck hardware and full tilting Triplex glass windshield with side wings to offer added protection against wind and spray—all are features of the new Hackercraft.

But ride with us and decide for yourself the superb qualities built into these genuine Honduras mahogany hulls. Open the throttle—feel the lift of the entire boat rather than just the bow—feel the uncanny lightness and buoyancy of the airplane itself in the take-off. John Hacker has captured the baffling secret of this performance—builds it into each one of his four models—for the man who seeks riding grace and distinction in the boat he owns.

HACKER BOAT COMPANY
Mount Clemens, Michigan

On Display—New York, 5th Avenue at 15th Street; Boston, 1043 Commonwealth Ave.; Philadelphia, 102 South 4th St.; Palm Beach, Florida.

Hacker offers all models with the special Sedan Top as illustrated.

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STILL LEADING

26-ft. Playmate, 25 miles, $3500; 15 miles, $2950

We Announce for 1929

A COMPLETE line of skiffs and smooth planked speed cruisers to meet the modern demand for both fast fishing or family cruising. Each model a leader in its class.

New 40-ft. Playmate
Single and Double Cabin
Single- and Twin-Screw
Plans Ready

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WHEELER SHIPYARD

Foot Harway Avenue

BROOKLYN NEW YORK

BENSONHURST 5091-8550

The Why and Wherefore of Spark Plugs

(*Continued from page 88*)

combustion chamber, due to the dead cylinder. In this case, the plug should be removed immediately and cleaned.

Laboratory research has shown that the useful spark plug temperature range is between that required for burning the carbon off the insulator and that at which the hottest part of the plug may cause preignition. This temperature range is only about 350°. This explains why spark plug manufacturers recommend different types of plugs to meet different engine characteristics.

An outboard engine is generally of the two-cycle type. An explosion occurs at the top of each stroke of the pistons or twice as often as in the four-cycle automobile engine, which has an explosion at every other upward stroke of the pistons. Thus, with a two-cycle engine, a plug has to digest twice as many explosions as in the case of a four-cycle engine running at the same speed. The wonderful improvement in this type of engine has permitted racing speeds of from 4,000 to 5,000 r.p.m., a rate which subjects the plugs to the same punishment as an automobile racing engine would give if it were driven at the fantastic speed of 10,000 r.p.m., equivalent to 84 explosions in each cylinder every second. High speed plugs must be used in such cases. These plugs have a very short insulation, so that at top speed the temperature of the most exposed part will not reach the preignition point. Naturally, this plug will not stand very much idling of the engine without becoming covered with oil and carbon, since the temperature of the plug is too low to burn away the accumulated oil. To enable an engine to reach such a high speed safely, the amount of oil contained in the gasoline must be quite high; at very low engine speed this oil tends to collect over the inside of the combustion chamber and plugs. When outboard engines are used for racing purposes, therefore, a plug similar to No. 25 is needed, but if the same engine is run at lower speeds for cruising, a different plug would have to be used, No. 60, for example.

When "running-in" a racing engine (either a new or overhauled one), hot plugs should be used, because of the excessive oil in the engine and its low speed. In races, the race-type plug should not be used for warming up the engine. This warming up should be done with a hotter plug, and the racing plug installed afterward, just before the race. No plug trouble will be encountered if this procedure is followed.

Too much oil — more than the manufacturer of the engine recommends — is decidedly harmful to the operation of the engine and spells fouling trouble. Furthermore, the engine will not reach its top speed, as it would with the correct gasoline-oil mixture.

In inboard engines it is very important to have either a thermostat control in the water temperature or a water temperature gauge. The water temperature has to be kept at the highest possible point without causing any steam pockets in the system. This permits fuel economy and eliminates much spark plug and engine fouling.

Figure 2 shows plugs of different designs, with paths of heat flow of different lengths, and illustrates how the working temperature of the plug can be controlled by varying the resistance to heat flow, especially in the insulator.

This series of plugs belongs to the so-called metric size thread and was developed and introduced by a well-known spark plug company to take care of present engine developments. The series has a uniform scale range of temperatures and is so designed that each member — under given working conditions — will keep slightly cooler than the one which follows it. Each plug is identified by a number; the higher the number, the better adapted the plug for use in a "cool" engine. This line of fourteen plugs is

STAUNCHLY BUILT

Surpassing Every Standard for Comfort--Beauty--Speed--Value

The handsome Seagull model pictured below is a 39-foot Sedan Cruiser with galley, toilet, spacious cabin and large afterdeck. It is a complete seagoing cruiser, sleeping four passengers, with a 450-mile cruising range and Hall-Scott or Sterling powered to give speeds of 30 to 32 miles per hour.

The 42-foot twin Sterling custom commuter is a new design that provides its owner with every cruising comfort, attractive cabin arrangements, large forward cockpit and an effortless speed of 35 miles per hour.

The Red Arrow is a 38-foot twin screw day cruiser that also embodies the skill and designing genius of John L. Hacker, its creator, to offer a brand new type of genuine cruising satisfaction and enjoyment. Space has been skillfully apportioned to secure maximum room and complete comfort afloat *Let us send you full details today.*

Represented by **A. C. F. Salons, 217 W. 57th St., New York City; 500 East Jefferson Ave., Detroit and S. Clyde Kyle, Rialto Bldg, San Francisco; Walter Moreton, 1043 Commonwealth Ave., Boston; Kimball Marine Corp., 29 Wacker Drive, Chicago; R. B. Lechinger, Houston, Texas.**

39-ft Seagull Sedan Cruiser Hall-Scott or Sterling Powered . . . $13,200 to $14,300

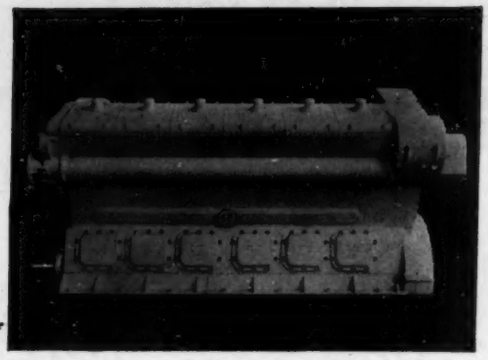
42-ft Twin Screw Commuter $22,500

38-ft Red Arrow Day Cruiser Optional Twin Screw Power $12,800

3 Models

ROBINSON MARINE CONSTRUCTION CO., *Benton Harbor, Michigan*

THE TRUE ENGINE IS THE ENGINE BUILDER



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When the Treiber Diesel Engine Corporation announced that it was building Diesel marine engines scaling about one-sixth the weight of ordinary Diesels, skeptics doubted that such engines would be strong enough to be serviceable.

Here are figures to convince the most skeptical:

Common engine metal has a tensile strength of about 22,000 lbs. per square inch, and a hardness of 34 scleroscope. Metal in Treiber Diesels has a tensile strength of 58,000 lbs. and a 45 scleroscope. An equally convincing comparison might be made with crankshafts, connecting rods, pistons and rings, wrist pins and every part of the engine subject to stress or wear.

But that's only part of the story. Completely descriptive bulletins covering all the details of all sizes of Treiber Diesels from 65 to 3000 HP. will be sent to you upon request.

TREIBER Diesel Engine Corp.

Dept. Y. Camden, N. J.

designed to take care of the requirements of all present day engines using regular metric size, thread from the engine of a low-priced, four-cylinder car to that of a racing car engine, and an engine of the outboard, two-cycle racing type. Plug No. 15 of this series, for instance, is used by racing drivers on fast tracks, while No. 25 is much used on fast motor boats with outboard motors.

The Conversion of the Cruiser *Ambra VI*

(*Continued from page 64*)

After four seasons' use, the only changes that I would suggest for another conversion would be the lowering of the cabin floor six inches, which could be done without materially decreasing floor room, and the lowering of the pilot house floor to the level of the deck.

The question has been asked me as to rolling with the apparently high superstructure. The radius of gyration of the hull is about 18 inches above the cabin floor. During all our cruising one chair has tipped over down below and nothing was ever lashed. Things are a bit lively in the pilot house, when rolling heavily, but even when making the turn off the Miami entrance in a heavy breaking sea she never showed any signs of hang in a roll.

In connection with the studies for the installation of engine and propeller in *Ambra VI*, much data on Navy launches was accumulated, some of which may be of interest to those confronted with similar problems. This same hull, fitted with a four-cylinder 50-h.p. engine, and the Navy wheel of 24-inch diameter by 16¼-inch pitch, attained the following results:

	R.P.M.	*Speed*
Light	818	7.56 knots
Service displacements	825	7.61 "
Full load	825	7. "

Three sister hulls, fitted with 24 by 24 wheel and four-cylinder, 2-cycle engines of 24 h.p., made the following speeds in racing trim:

R.P.M.	*Speed*
591	7.955 knots
570	8.303 "
582	8.099 "

A 50-foot Navy steamer, with square stern and 10-foot beam, fitted with a 24-inch diameter by 16¼-inch pitch wheel, with Packard 42-h.p. engine (6-cylinder, 4 by 5½) made 8.6 knots at 820 revolutions; consumption, four gallons an hour.

It will be noticed that the 27 by 14 wheel on the motor sailer hull gave materially the best results.

Midwinter Regatta to Feature East-West Races

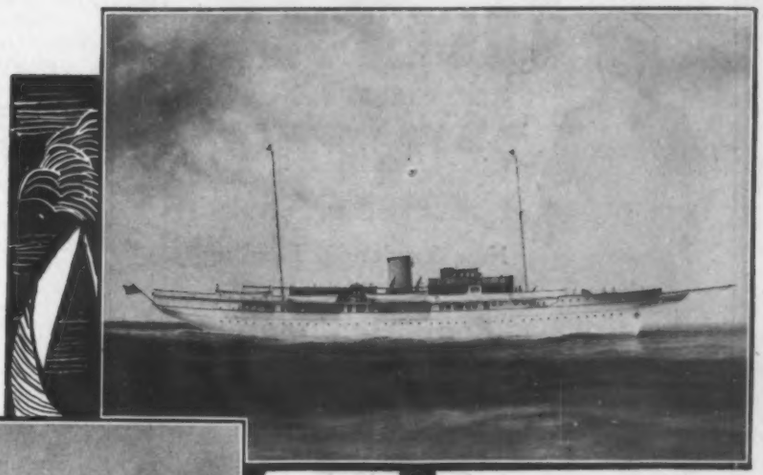
(*Continued from page 85*)

largely in three boats: Owen Churchill's *Friendship;* Samuel Dauchy's *Maribel*, ex-*Alert III;* and the Royal Vancouver Yacht Club's new Nicholson-designed *Lady Van*, a proven light weather ghost. Other "R" entries include *Pirate, Francesca, Angela, Heather* and *Aloha*. Royal Vancouver may change its entry at the last minute to *Lady Pat*, a last year boat from the board of John Alden, if advance weather indications warrant the shift.

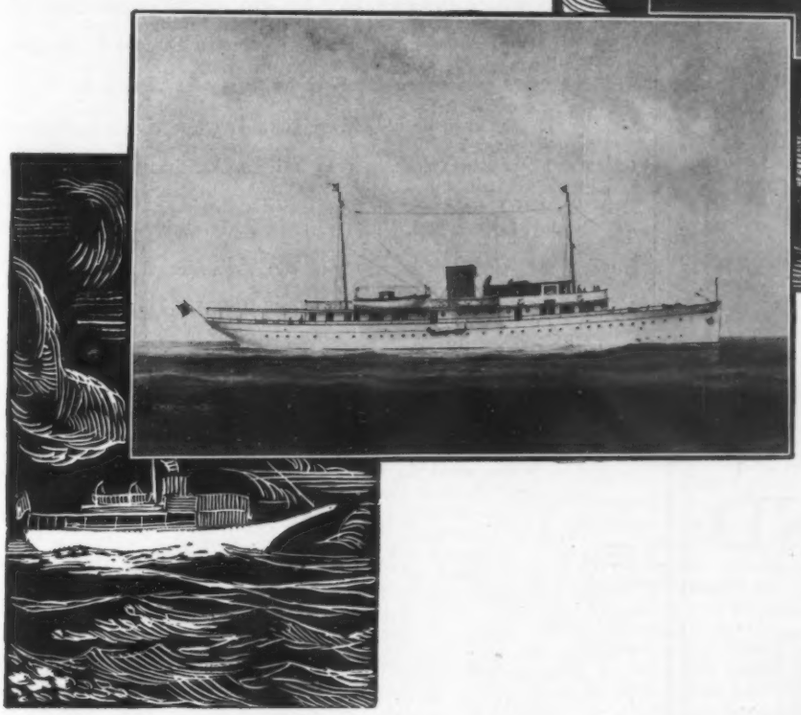
Five California Six-Metre entries will race for the Meyer Cup, won last year by Commodore Ellis with Johnson de Forest's *Priscilla*. Entries include Stuart Haldorn's *Ay-ay-ay;* Arthur Rousseau's *Maybe;* H. W. Rohl's *Clio;* Al Rogers' Anker-designed *Synnove;* and Angleman and Smith's *Harpoon*.

There will be five days of series racing for the three sloop classes, but no team races this year. In addition, the 45-foot cruising class of schooners, yawls and ketches will hold its annual fight for the May Trophy on the first two days of the regatta. Besides the three main trophies, there will be awarded first, second and third place cups for the entire series and first, second and third place trophies for each race.

DIESEL ENGINES



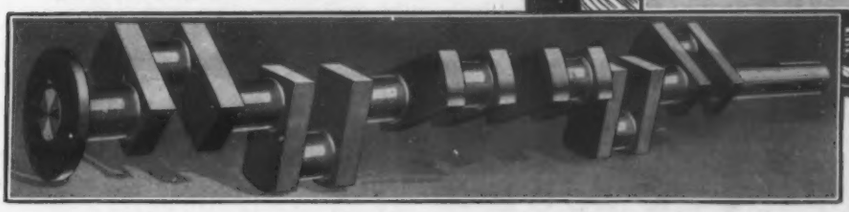
The Diesel yacht Hi-Esmaro—267 feet long, now building for Mr. H. E. Manville. The power plant consists of two 1500 H. P. Bessemer direct reversible 8 cyl. Diesels and two 100 K.W. Bessemer Diesel generating sets. Designed by Henry J. Gielow, Inc. Building at Bath Iron Works.



The 165 foot Diesel yacht now building for a Detroit automotive president. This yacht is being powered with two straight eight Bessemer Diesels of 425 H. P. each, and with two 50 K.W. Bessemer generating sets. Designed by Henry J. Gielow, Inc. Building at Lawleys.

Bessemer "One Lever Control" centralizes the *complete* control of the engine in *one* lever. It is simplicity itself—stopping, starting, and reversing by *one* operation.

The extra large Bessemer crankshafts mean smoothness of operation and lack of vibration. The diameter of the crankshaft in the 950 H. P. engine is 12¼".



DIESEL ENGINES

GOLDMAN and WAITE UNIFORMS

New England's Leading Yachting Outfitters

Complete Uniform Outfits

For Owner and his Crew

Prompt and Efficient Service
Exacting Workmanship

Estimate for your seasons' needs gladly furnished

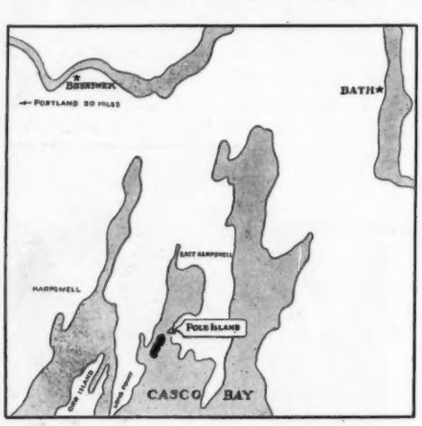
ESTABLISHED 1900

109 STATE ST., BOSTON

TEL. HUBBARD 5522 & 5526

POLE ISLAND

On the Maine Coast



BEAUTIFULLY wooded island, nearly mile long and one-third mile wide, situated less than one-quarter mile off shore. Owner's cottage and guest cottage fully furnished. Boat house and stone pier. Deep water and good harbor — bathing cove. Buildings fully improved and equipped; in excellent condition. Will be sold at fraction of cost to settle estate. Full information on request. Address:

W. J. LOCKWOOD

18 W. 34th St. New York, N. Y.

PHONE PENNA. 6590

Recent Yacht Sales

Reported by Lloyd's Register of American Yachts

Atlantis, 97′ schooner. Not in Lloyd's Register. Sold to Dr. Alexander Forbes, of Milton, Mass.

Scapa III, 32′ sloop. Sold by George E. McQuesten to H. D. Savage, of New York City.

Madrigal, 38′ auxiliary schooner. Sold by Donald N. Gilpin to F. S. Pratt, of Boston.

Mignon, 74′ power cruiser. Sold by William Clippert to Bernard Helfman, of Detroit.

Bonita II, 105′ power cruiser. Now owned by Paul L. Gray and renamed *Veteran*.

Carminita, 59′ power cruiser. Sold by George E. Halliday to James B. Eliason, of Wilmington, Del.

Jessica, N. Y. Y. C. Forty. Sold by John W. Masury to William O. Gay, of New York City.

Taurus, 30′ sloop. Sold by W. L. Inslee and R. L. Hague to Henry L. Maxwell, of New York City.

Mischief, 41′ auxiliary yawl. Sold by A. Nelidow to Henry W. Banks, Jr., of Noroton, Conn.

Bacchante, 38′ auxiliary yawl. Sold by Arthur Crisp to William S. Gould, Jr., of New York City.

Bess, 73′ auxiliary schooner. Sold by H. C. Sheridan to Joseph H. Callan, of New York City, and renamed *Elsie B.*

Hawk, 32′ sloop. Sold by C. H. W. Foster to Donald C. Stanley, of Elizabeth, N. J.

Percianna, 66′ power cruiser. Sold by Percy L. Hance to W. W. Wilpen, of Boston.

Starling, 75′ power cruiser. Sold by Ivan Trucking Corp. to Edward Morris, of New York City.

Venture, 73′ power cruiser. Sold by William D. Turner to Walter C. Lewis, of Boston.

Mariska, 94′ houseboat. Not in Lloyd's Register. Sold by F. D. Owsley, Greenwood, Va., to Anton E. Walbridge, of New York City.

Houqua, 30′ auxiliary ketch. Sold by Alexander W. Moffat to J. Girard Hern, of Woburn, Mass.

Lightning, 24′ sloop. Sold by Cornelius J. Lynch to James Hutton, of Detroit.

Picaroon, 33′ auxiliary schooner. Sold by H. L. Pierson and J. F. Whitehead to Dr. R. S. Morris, of Cincinnati.

Duchess, 30′ sloop. Sold by Robert Jacob to Albert Stickney, of New York City.

Petunia, 55′ power cruiser. Sold by Herbert Farnum to Dr. George W. VanBenschoten, of Providence, R. I.

Scimitar, 38′ Seawanhaka schooner. Sold by Spencer W. Aldrich to Malcolm White, of Greenwich, Conn.

Undine, 41′ power cruiser. Sold by Stewart Bastow to W. Clark S. Mays, of Edgewood, R. I.

Hi-Esmaro, formerly *Vidor*, 162′ power yacht. Sold by H. E. Manville to Charles Boldt, of Santa Barbara, Calif., and renamed *Hilda*.

Vortex, 149′ power yacht. Renamed *Vara* by Harold S. Vanderbilt.

Who, 70′ power cruiser. Sold by Albert L. Pack, of Chicago, to Henry G. Barkhausen, of Green Bay, Wis.

Twilight, 10-metre class. Sold by C. D. Mallory to Lindsley Loring of Westwood, Mass.

Faith, 86′ auxiliary ketch. Sold by Walden W. Shaw, of Chicago, to Courtlandt S. Brown, Los Angeles, Calif.

Ranger, 102′ power yacht. Sold by John G. Winant to Harry M. Pierce, of Wilmington, Del., and renamed *Poinsettia*.

Keeping Up with the Outboard

(*Continued from page 94*)

cruisers, equipped with transom berths, toilet, small stove, and a locker for supplies.

A number of builders showed metal-hulled craft, some of them racing models and others utility craft. The metal used in construction is anti-rusting and anti-corrosive, light and strong. A bump on a metal boat is easily faired up again, and seldom causes a leak, and there is no drying out, straining and leaking — these are the principal arguments used in favor of metal hulls as against wooden craft. With one or two exceptions, metal-hulled craft do not seem to have made any great headway with the boating public.

Several of the runabouts shown had permanent lifting rings installed, with yacht tender use in view. It would seem as though this type of outboard should be excellently adapted for yacht tender use, and more of them will doubtless be used as yachtsmen wake up to their advantages.

Of Interest to the Skipper

(*Continued from page 106*)

Steel Floats for the Care of Motor Boats

With the great growth in the number of fast runabouts and cruisers of moderate size, there has been increasing need of some means for the adequate care and protection of these boats when not in use. In many sections boat-houses or slips for the proper care of these craft have not been available, and service stations have not kept pace with the growth of the power boat fleet. To meet this demand, the Walsh-Bugbee Co., Trenton, N. J., has developed and is marketing a line of steel floats with slipways for one, two or more boats, with runways or flat forms between, which solve the problem of the proper care of a high grade boat. These floats are built on steel drums with a platform built over them and with canopies on steel stanchions for the slipways. They are strong, rugged, and yet artistic, and they are being used extensively by individual owners or by yacht and shore clubs, where some means must be provided for the care of boats.

In addition to these artistic steel floats, the Walsh-Bugbee Co. also builds a floating breakwater for the protection of these floats or of boats in exposed waters, such as Long Island Sound, the shores of Chesapeake Bay and the Great Lakes. These breakwaters are built on very heavy steel, treated to prevent rust. They come in pontoons, 30 feet by 4 feet, and the breakwater is built in sections, each section weighing 18 tons. From these sections a steel bulkhead is built down nearly to the bottom of the water at low tide. The sections are securely moored by dolphins. These breakwaters are said to give ample protection on exposed coasts.

An Objectionable Gasoline Tax

With the growing tendency of the various states of the Union to place a tax on the use of gasoline for fuel, motor boat users are faced with a burden that bids fair to be a hardship to pleasure craft and commercial vessels using gasoline for fuel. In both Pennsylvania and New York legislation is pending, which, if passed, will place a tax on all gasoline fuel used in these states. The tax is primarily directed at automobiles and commercial, motor-driven cars, and it is proposed to use the proceeds of this tax for the building and upkeep of the highways of the state. The tax as a whole is a road measure, pure and simple, but unless exempted, motor boats, which naturally do not use the roads at all, will fall within the provision of the measure and be subject to the tax.

In Pennsylvania there is already a tax of three cents per gallon on gasoline used as fuel, and it is proposed to raise this tax to four cents. In a tax, the proceeds of which are to be used for road purposes, there is no more reason why motor boats should be burdened than the users of stationary engines.

We understand that the unfairness of this measure is being brought to the attention of the legislators of Pennsylvania, and an effort is being made to have power boats exempted from the provisions of the proposed law. We are heartily in accord with these efforts, and it is up to every user of motor boats in the State of Pennsylvania to bring pressure to bear to see that this is done. To this end, every boat owner should write to his representative, calling attention to the fairness of such an exemption. In making this exemption the Pennsylvania Legislature would merely be making this tax bill conform to those in operation in the states of

Even when teeth are white

NOBODY'S IMMUNE*

*4 out of 5 Neglect the Gums and Surrender Health to Pyorrhea

DANGER seems so remote when teeth are white. But, as your dentist will tell you, teeth are only as healthy as the gums. And diseases that attack the gums seldom reveal their presence until too late.

So start taking proper care of the gums to preserve teeth and safeguard health from dread Pyorrhea—the disease of neglect that ravages 4 persons out of 5 after forty and thousands younger.

Every morning and every night, when you brush your teeth, brush gums vigorously with the dentifrice specifically made for this purpose—Forhan's for the Gums.

Within a few days you'll notice an improvement in the way your gums look and feel. In addition, your teeth will look cleaner and whiter. For while this dentifrice helps to firm gums and keep them youthful (the surest safeguard against Pyorrhea) it also cleans teeth and protects the crevices where decay so often begins.

Get This Good Habit

Remember, nobody's *immune*. And the safeguard against disease is proper daily care and a semi-annual visit to your dentist.

Get a tube of Forhan's from your druggist today. Two sizes — 35c and 60c. Start using it, morning and night. Teach your children this good habit. It will protect their health. Forhan Company, New York.

Forhan's for the Gums is far more than an ordinary toothpaste. It is the formula of R. J. Forhan, D. D. S. It is compounded with Forhan's Pyorrhea Liquid used by dentists everywhere. You will find this dentifrice especially effective as a gum massage if the directions that come with each tube are followed closely. It's good for the teeth. It's good for the gums.

Forhan's

FOR THE GUMS

YOUR TEETH ARE ONLY AS HEALTHY AS YOUR GUMS

GET MORE OUT OF YOUR BOAT WITH A SCRIPPS

Fine marine motor enthusiasts who desire top performance, smooth and reliable, today have a wide choice in models, power and price, in Scripps.

The famous Scripps counter-balanced Six, acknowledged both home and abroad, as the finest of all fine *marine* motors is now available with all the latest and improved features—down-draft carburetion, rotary mechanical fuel pump of ample capacity, especially designed built-in oil cooler, Purolator, and many other refinements.

Finer in engineering than any other motor Scripps has ever built—in materials the finest obtainable.

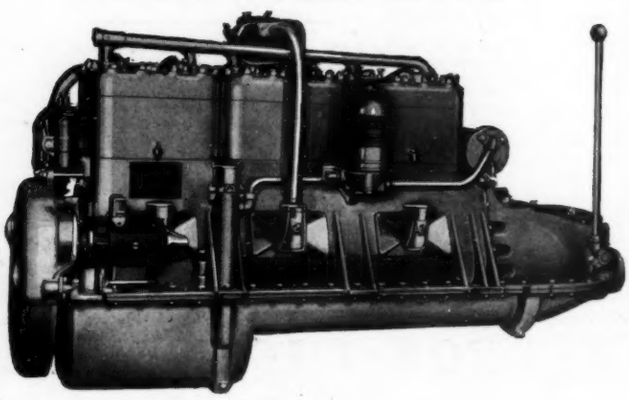
The Motor with a Backbone — Tried, Proven and Accepted.

15 to 200 horsepower for boats 20 to 100 feet in length. Right and left hand rotation for true twin-screw arrangement.

SCRIPPS MOTOR COMPANY
5833 Lincoln Avenue - - Detroit, Mich.

Scripps

THE MOTOR *THAT* CROSSED THE ATLANTIC



Delaware, Maryland and Virginia, which commonwealths, while having a fuel tax for motor vehicles, exempt boats and other interests that do not use the highways.

Death of Well-Known Yachting Writer

Just as this issue of YACHTING goes to press comes the news of the death, on February 2nd, in Sawtelle, California, of Captain James C. Summers, at the age of 74.

The older yachtsmen of the Atlantic Coast will remember Captain Summers as one of the best known yachting reporters and writers before the war, when he was with the *New York Tribune*. A contemporary of the late Arthur F. Aldridge, of the *Sun*, these two writers, together with Arthur Brandt, of the *Herald*, covered the sport of yachting in New York waters when the daily press devoted more space to yachting affairs than it does today.

Captain Summers wrote on nautical affairs for many newspapers and magazines and was yachting editor of the *Tribune* from 1899 to 1917. As late as 1927 he contributed articles to the *Herald Tribune* during his journey to France with the delegates to the American Legion Convention.

He was at one time editor of *Who Won?* — an annual official yacht record, and had served as editor and publisher of *Burgee and Pennant*, a yachting weekly, and of *Yachting*, a magazine that he published in the Nineties of the last century. This periodical had no connection with the present magazine of that name.

Captain Summers was a member of the New York Press Club, the Old Guard, Naval and Military Order of the Spanish-American War, Veterans of Foreign Wars, U. S. Revolver Association, Masonic Veterans, United Spanish War Veterans, American Legion and Royal Arcanum.

He was in the naval militia from 1890 to 1898 and served as a lieutenant in the Spanish-American War. He was again commissioned a lieutenant at the age of 62 in the World War and served at posts in and about New York City.

Boat Sales for 1929 Greatest in History of Industry

Widely increased interest in boating is again evidenced in the announcement of The Matthews Company, of Port Clinton, Ohio, builders of the Matthews "38" line of cruisers, that sales of cruisers for 1929 delivery far exceed those scheduled as of February 10 of last year.

Retail sales in 1928 for winter and spring delivery, scheduled prior to the New York Motor Boat Show, exceed those for the same period in 1927 by 203%. Retail sales at the New York Show this year exceeded those of last year by 39%.

The production schedule at the Matthews plant calls for the largest year in the history of The Matthews Company, which dates back to 1890. Plant facilities are being expanded, and additional new equipment is being installed. It is expected that production will be increased by at least one and one-half boats per week by the additions now in process.

New Evinrude Distributor for Northwest

To meet the rapidly increasing demand for outboard motors in the northwest, the Evinrude Motor Company, of Milwaukee, announce the appointment of the Morley-Murphy Company of Green Bay, Wisconsin, who will serve as distributors of Evinrude motors for northern Wisconsin, and the upper peninsula of Michigan.

WHY FAMOUS MEN OF THE DAY USE BARBASOL

FLORENZ ZIEGFELD

. . . Glorifier of feminine pulchritude, creator of superb musical productions.

"I insist on shaving quickly, in comfort"

"Without the old-fashioned props, brush, lather and rubbing, Barbasol gives a perfect shaving performance quickly and leaves the skin feeling soft and refreshened."

Florenz Ziegfeld

BARBASOL does for shaving what brushing, lathering and rubbing never could do. That's why prideful, comfort-loving men use this modern shaving cream.

There's nothing like it

No time-wasting mess. You just squeeze a bit of Barbasol from the man-sized tube and lightly spread it on the face as your barber spreads a massage cream. Then shave. From the first smooth sweep of the razor to the last, it's a succession of surprises. There's no razor pull, no scratching, no nicking. Barbasol does away with that. As it smooths the razor's path, it softens the skin, soothes it, cools it. You get a clean, close shave so easily. And when you've finished, the face looks as refreshed as it feels. Here's how it's done: 1: Wash the face (leave it wet). 2: Spread on Barbasol (don't rub). 3: Shave —dry the face. That's all.

In a mere fraction of the usual time . . . you have the cleanest, smoothest and by far the most comfortable shave you ever had!

Today, get a tube of Barbasol from your druggist. Two sizes, 35¢ and 65¢. And tomorrow morning, step into the bathroom and treat yourself to this "who's who" shave. Your face will enjoy it and so will you. The Barbasol Company, Indianapolis, Ind.

Women like their men

young looking, bright and keenly fresh looking. Men like to be this way too. New Barbasol Skin Freshener cools, revives, freshens. Douse it on the face—after shaving—whenever tired. Nothing better . . . you'll agree!

Barbasol
For Modern Shaving
No brushing—No lathering—No rubbing